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ABSTRACT

This report summarizes the discussions of a task force which focused on the concept of professional practice schools. These schools are public elementary, middle, or secondary schools which are structured, staffed, and supported to achieve three goals: student achievement, teacher induction, and support of research directed at the continuous improvement of practice. The professional practice school should be developed as a collaborative institution with the roles and responsibilities shared among university and school district personnel. With a status similar to the medical teaching hospital, it becomes the teaching site for clinical faculty and the place where university researchers, who are oriented toward research in practice, may work with public school teachers. The pre-clinical education of interns remains a university responsibility. Three papers are presented which deal with issues of accountability, curriculum, and standards for professional practice schools. An additional paper provides background for the conceptual framework. The papers included are: (1) "Accountability for Professional Practice" (Linda Darling-Hammond); (2) "Professional Practice Schools: How Would We Know One if We Saw One? A Guide to Self-Assessment" (Holly M. Houston); and (3) "Establishing Professional Schools for Teachers" (Mary M. Kennedy). (JD)

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PROFESSIONAL PRACTICE SCHOOLS:

BUILDING A MODEL

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AMERICAN FEDERATION OF TEACHERS

With Support From
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FOREWORD

The Professional Practice Schools project is one effort of the AFT directed at restructuring the public schools in this country, in order to provide a quality education for all children. The first year of the project was devoted largely to concept building. Working with a task force of local AFT leadership and national experts, we addressed such questions as "What is a professional practice school?" "Why do we need them?" "What might they look like?"

The results of our work are presented in the collection of papers in this monograph. They do not, however, represent a complete set. In the project's second year, we will continue to develop the idea through additional commissioned work. Further, we will focus on implementation issues as we work with the first generation of professional practice schools which are being planned and implemented as we write.

We would like to express our appreciation to the Exxon Education Foundation and Scott Miller for their support of this initiative. In addition, we would like to thank the authors of the commissioned papers, Linda Darling-Hammond, Holly M. Houston, and Mary M. Kennedy.

Albert Shanker
President
American Federation of Teachers

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INTRODUCTION

Marsha Levine

Over the past nine months, staff of the American Federation of Teachers, supported by a grant from the Exxon Education Foundation, have focused on the concept of professional practice schools. A task force was assembled to discuss the purposes for creating such institutions, what they might look like, and what they might achieve.

Members of the task force were: Barbara Agor, Rochester Teachers Center; Traci Bliss, Connecticut Department of Higher Education; Patrick Daly, Vice President, American Federation of Teachers; Linda Darling-Hammond, Director, Education and Human Resources Program, Rand Corporation; Gary Griffin, Dean, College of Education, University of Illinois at Chicago; Holly Houston, Former Executive Director, Coalition for Essential Schools; Ann Lieberman, Director, Puget Sound Educational Consortium; Tom Mooney, President, Cincinnati Federation of Teachers; Richard Price, Department Head, English, Carrick High School, Pittsburgh; Marilyn Rauth, Assistant to the President for Educational Issues, American Federation of Teachers; Phillip Schlechty, Executive Director, JCPS/Gheens Professional Development Academy; Louise Sundin, President, Minneapolis Federation of Teachers; Adam Urbanski, President, Rochester Teachers Association. The task force was chaired by Marsha Levine, Associate Director, Educational Issues, American Federation of Teachers.

This report attempts to summarize the discussions of the task force and to synthesize them with the findings of research, interviews, and conversations held with individuals involved in research, policy, and practice in elementary and secondary education, and higher education including teacher education and medical education.[1]

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[1] While the report reflects the discussions of the Task Force, the participants are neither collectively nor individually responsible for any views expressed herein, nor is this report a statement of American Federation of Teachers policy.

Marsha Levine

WHAT ARE PROFESSIONAL PRACTICE SCHOOLS AND WHY DO WE NEED THEM?

Professional practice schools are public elementary, middle or secondary schools which are structured, staffed and supported to achieve three goals: student achievement, teacher induction, and support of research directed at the continuous improvement of practice.

They are an idea whose time has come. While some of the arguments in support of them have been with us for quite a while, they are now coming together with compelling force in a context ripe for change. There are at least five good arguments for why such institutions should exist.

First, there is general agreement among teachers in practice that the most useful and relevant part of their professional preparation was the practice teaching or student teaching experience. It is during that time that the prospective teacher is able to learn how to practice in the setting in which practice occurs. It also is the experience which provides a socialization process into teaching. Given the significance of this phase of professional education and the appropriate importance which teachers give to it, it is ironic that it remains so idiosyncratic and unstructured. For some, student teaching or internship is a professional education experience; for others it is a frustrating time spent with a cooperating teacher or mentor who is neither equipped nor inclined to play the role.

Second, if teaching is ever to be a self-governing profession it must have, as one of its characteristics, a structured induction experience conducted under the supervision of outstanding practitioners who can and will attest to the competence of new inductees to practice. Implicit in this notion is the existence of agreed upon standards of practice, developed and upheld by practitioners and required of inductees.

Another argument for the development of professional practice schools is that they can be the locus for better, more productive collaboration between university and school, an important strategy for school improvement. The professional practice school should be developed as a collaborative institution with roles and responsibilities shared among university and school district personnel. With a status similar to the medical teaching hospital, it can become the teaching site for clinical faculty and the place where university researchers who are oriented toward research in practice, may work with public school teachers. The professional (pre-clinical) education of interns would remain a university responsibility.

A fourth argument for professional practice schools derives from the nature of teaching and its relationship to the institution of school. Public schools were organized as a matter of convenience to provide an economical and efficient way to carry out the responsibility of providing an adequate education to the populace. Additional support for schooling came with the recognition that the socialization which occurs in school settings could be instrumental in meeting the social and political goals of public education. Schools, however, were not organized in ways which would enhance the learning of children -- particularly as the definition of learning has expanded beyond rote memorization and basic literacy and numeracy. In most schools today, teaching directed at involving students in an active learning role, and at developing higher level thinking skills, is not supported by the organization of the school. Doing that kind of teaching in the typical school is something like a surgeon doing open-heart surgery in a shopping mall. That is to say, there are no institutional supports for professional practice. Professional practice schools can provide the institutional supports for professional practice through their organization and structure. They can do this in some significant ways. They can support both the <u>use</u> of the knowledge base and

the further development of the knowledge base which informs professional practice; and they can make an important contribution to the establishment of standards of practice.

The final, and most compelling, argument for the establishment of professional practice schools has to do with students. While carrying out their mission as training institutions for new teachers and supporters of inquiry directed at improving practice, professional practice schools will become places which support student learning. The same environment which supports the development of knowledge-based, inquiry based professional practice is also one which enhances student learning. As such, professional practice schools can become exemplars for other schools which may or may not themselves be training institutions.

We think these are strong arguments. Some words of caution, however, are in order. First, it is quite conceivable to develop induction schools which reinforce a technical or bureaucratic conception of teaching and which do not result in any institutional changes. They might provide more structured induction programs but only reinforce practice as we know it. To do this would be missing an important opportunity for improving the quality of public schools.

A second note of caution regards the need for systemic support for this kind of institutional development which must be considerable and enduring over some period of time. The changes which are embedded in the principles which underlie this institution, and in the characteristics which describe it, are fundamental. It will take time for people working together across their institutional boundaries, and from their positions of often competing interests, to establish these schools on common ground.

PURPOSE OF THIS PROJECT

The goal of this project was to conceptualize the new institution. Embarking on this effort we made several assumptions. First, we believed that fundamental structural changes have to be made in public schools if they are going to be able to successfully carry out their mandate. Second, such changes will require a long-range strategy which must include changing the way teachers are educated. And finally, we assumed that the vision of learning which we hold requires that teachers be professional practitioners. In other words, we assumed from the beginning, that the professional practice school would be a restructured school, dedicated to enhanced student learning, and the professional education of teachers.

We had the opportunity (and seized it), to address the most fundamental questions of purpose, principles, and values upon which to build this institution. We believed that the professional practice school could play a pivotal role in the restructuring of public education.

The agenda which we addressed was shaped by our desire not to be prescriptive and detailed about what professional practice schools might look like -- but rather, to develop the concept of this institution and suggest some indicators which might give evidence of how well grounded a school was in this concept.

Looking for Models

When confronted with a problem in education, or any field, it often is useful to look outside the community to see whether, or how, others have solved similar problems. This process sometimes suggests alternative perspectives and strategies we may not have thought about before. For this reason we explored the question of how medicine became a profession and particularly the role the teaching hospital played both in professionalizing medical practice and influencing the development of hospitals as institutions which supported professional medical practice.

We also looked at how professional practitioners in other fields, e.g., law, architecture, social work, are educated as practitioners.

These examinations led to an exploration of what professional practitioners do in common (Levine, 1988), and ways in which teacher interns might learn to be professional practitioners (Kennedy, 1988).

BASIC PRINCIPLES

Much time was spent addressing antecedent questions such as "What are the fundamental principles underlying the professional practice school?" We believed these principles had to reflect our shared perception of a vision of learning, a view of professional teaching, and the responsibilities of public education.

We concluded that the following principles should underlie professional practice schools (and all schools for which professional practice schools may be exemplars):

1. The primary goal of schools is to support student academic and social learning;

2. Learning is an active process; it occurs in different ways and at different rates;

3. Professional practice in teaching is knowledge-based, reflective, and inquiring; and

4. Public schools are obligated to safeguard both equity and high standards for learning outcomes.

By laying out these principles we were saying that these are the screens through which all decisions must pass about the structure of the school and what goes on within it. Other groups, working at the local level to establish professional practice schools, might add to these principles. The main point however, is that these are fundamental, basic principles which ought to guide whatever happens, and that they need to be clearly articulated, and agreed upon.

MISSION

Adapting the mission of the medical teaching hospital whose history, development and impact has clear relevance to the problems we are addressing in education, we identified a triple mission for the professional practice school:

1. To support student learning;

2. To support the professional education of teachers; and

3. To support inquiry directed at the improvement of practice.

We considered the many ways in which an institution might support these missions -- always with an eye toward consistency. The following sets of characteristics are meant to provide frameworks for local efforts to design such schools.

...To Support Student Learning

In order to fulfill this part of the mission the professional practice school should have certain characteristics:

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1. A shared vision of learning among faculty, administration, school board, parents, and students;

2. Flexibility in organization of instruction to permit teachers to get to know students well;

3. Accountability measures that are appropriate to the goals for student learning;

4. Clearly articulated and high standards;

5. Management focused on achievement of results rather than the delivery of programs; and

6. Problem solving and consultation activities that focus on the students' collective and individual needs.

In order to support student learning, the professional practice school must be structured in such a way that supports professional practice. We agreed that certain characteristics would provide evidence of such a commitment. They might include:

1. Collegially developed and agreed-upon standards of professional practice;

2. A shared decision-making process on questions of both policy and practice, with ultimate authority for decisions affecting professional practice residing with the faculty;

3. Collegiality as a norm, supported by providing time and flexibility in scheduling to encourage frequent and ongoing communication, observation and feedback among faculty members;

4. Joint planning and peer teaching among faculty members;

5. Support for creating linkages to university faculty;

6. Support for the continuous examination of practice through peer observation, consultation, and evaluation of practice;

7. Support of choice by providing the opportunity for individuals to choose to participate, as well as opportunities to select from those who choose to participate; and

8. Access to materials and journals to support continuous improvement of practice.

These characteristics are not inclusive. They are indicators of a commitment toward the goal. They may be altered and others developed as more experience is gained in restructuring schools.

...To Support The Professional Education of Teachers

A commitment to provide a structured and high quality induction program for teachers, built on a professional definition of teaching, is the second part of the mission of the professional practice school. This commitment should be supported through organization, staffing, and budgeting. Supportive characteristics might include:

1. Provision of resources expressly for this purpose;

2. Provision of time adequately allocated for this purpose;

3. Selection of professional practice school staff who demonstrate the skills, attitudes, and knowledge necessary for professional education roles;

4. Provision of in-service programs for teaching faculty to support their professional education roles;

5. An administrative structure that clearly provides for the management of resources (financial and human) dedicated to this function, including the appointment of a "chief of staff" who is responsible for this function;

6. Differentiated staffing with full-time faculty and university research faculty responsible for both student education and professional education; and

7. Adjunct faculty from other schools assigned for specific time periods or acting as adjuncts in their home school to ensure scope and depth of experience for the intern.

...To Support Inquiry Directed At the Improvement of Practice

The concept of the school as a center of inquiry for both students and faculty is central to the professional practice schools. Students are engaged in active learning, teachers are engaged in inquiry-based practice. The structure, organization and values of the school support these roles. Interns are there to learn how to be professional practitioners in these school environments. An important function of the professional practice school is to contribute to the knowledge base which supports professional practice. Some of the ways in which it may achieve this goal are:

1. Through the establishment of a review board that may include faculty members and outside experts to review research being done in the professional practice school;

2. By having an impact on the teacher interns through exposure to the kinds of thinking, problem solving, and inquiry going on in the research of faculty; through their involvement directly in that research; in their training to use the research process of reflective inquiry or strategic analysis in their own practice;

3. Through the allocation of time devoted to collegial interaction to support the planning, implementation, and evaluation of research;

4. Through the allocation of space and resources to support the research function; and

5. Through the provision of necessary management procedures required by the research function. For example, research in practice may necessitate a different sort of record keeping on student growth and development than what is typically employed in a traditional school. If the research activities receive separate financial support through grants, there may be the necessity of establishing a structure to handle the receipt and monitoring of such funds.

SOME KEY ISSUES

In order to develop certain issues in greater depth, the American Federation of Teachers commissioned three papers for the project. These papers deal with accountability, curriculum, and standards for professional practice schools.

Additionally, a paper was prepared by the project director which provides the background for this conceptual framework. It also reviews the

political and policy environment in which such schools might be initiated. It identifies several precursors to these institutions and discusses how they differ from and are similar to the concept being put forward.

Taken together the papers address some key components in the development of what can be a new and potentially important institution in public education. Additional work is ongoing. A second set of papers will focus on student learning, staff development, and implementation issues.

The papers on accountability, curriculum and institutional standards are summarized below.

ACCOUNTABILITY [2]

Professional Accountability

The professional practice school has a unique role with respect to professional accountability. It can and should model professional accountability for other schools. As an induction school it plays a key role in ensuring new teachers meet acceptable standards for practice. As supporters of research,professional practice schools contribute to the knowledge base which undergirds professional accountability (see Darling-Hammond, 1988).

Because professional practice schools can play a critical role in ensuring that new teachers are competent it is vitally important that the standards for acceptable practice be based on some clearly articulated conception of practice. This will require dealing with what teachers ought to know before they enter an internship program and what they need

[2] Accountability in the professional practice school is addressed at length in a paper by Linda Darling-Hammond entitled, "Accountability for Professional Practice," commissioned by the American Federation of Teachers, under this grant. This section is based on that paper.

to learn in the induction phase. This is not an easy set of decisions because there is as yet no agreed upon required knowledge base nor are there accrediting bodies which sanction such decisions. Professional practice schools will be assuming an important role in the interim.

In addressing this need, Darling-Hammond notes that several statements of a knowledge base for teachers are possible (e.g., Shulman, 1987; Gardner, 1987), but that, whichever is chosen, the goal ought to be empowering professional practice rather than prescribing behavior.

On the basis of these standards, the professional practice school can structure its program for how interns will learn what they need to learn. In doing so, there are at least two accountability issues:

1. How to ensure an adequate education program for interns, and

2. How to meet the needs of the students being served, at the same time.

The needs of the interns are met in part by ensuring that teaching faculty are themselves exemplars of good practice. Interns should also be required to have a range of experience with a variety of students and instructional settings.

Students' welfare is safeguarded through the use of consultative processes and review of major decisions and by prohibiting interns from having sole responsibility for a full teaching load.

There are many ways in which the structure for instruction can influence how well students' needs are met (e.g., client accountability). Some of these characteristics have already been noted.

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CURRICULUM [3]

Professional practice in many fields involves at least four different kinds of expertise, each of which involves a different use of knowledge or content. Kennedy identifies the four as (1) the application of technical skills; (2) the application of technical concepts or theories; (3) the ability to "critically analyze a situation and generate multiple interpretations of it"; and (4) the ability to take action on the basis of critical analysis which involves selecting goals from a range of possibilities which then serves as a screen for choosing actions. The 'deliberate actor' must then be able to learn from what she did. The latter kind of expertise can only be learned in real situations through real experiences.

Professional practice schools need to focus on this last kind of learning. It is important that they do because this kind of learning occurs anyway. In the absence of close examination, the wrong things are often learned. Unstructured student teaching experiences or internships allow novice teachers to draw conclusions about possible and appropriate practice on the basis of their own very limited experience. It is important that the intern not be left alone to develop this expertise.

Professional practice schools can provide the environment which ensures that this does not happen. It can make public what is most often a very private process of deliberation. In order to do this, teachers must be able to witness other teachers' experiences; and consultative processes and problem solving approaches need to be employed.

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[3] Curriculum for the induction of new teachers in the professional practice school is addressed at length in a paper by Mary M. Kennedy, "Establishing Professional Schools for Teachers", commissioned by the American Federation of teachers, under this grant. This section is based on that paper.

Kennedy's analysis of professional expertise, emphasizing the need for opportunities to develop critical analysis and deliberate action, suggests several implications for what interns ought to do in professional practice schools and conversely what ought to be done for them. These characteristics are identified as follows:

1. Novices must have responsibilities that require deliberation: responsibilities for establishing their own goals and for selecting their own actions;

2. Novices must have the opportunity to deliberate. They need both time and the knowledge to judge their goals, their actions, and the consequences of their actions in light of recognized concepts, theories and principles of teaching and learning;

3. Supervisors or mentors must be able to monitor novices' deliberations -- to monitor their interpretations of their experiences and their conclusions about their goals, their actions, and the consequences of those actions;

4. Supervisors or mentors must be able to influence novices' deliberations by offering contrary evidence and rival hypotheses, and by criticizing them in light of recognized concepts, theories and principles of teaching and learning; and

5. Supervisors and mentors must infuse content into novices' deliberations about their experiences and actions -- content meaning professional skills, concepts, theories and principles. [4]

The above are characteristics of an induction program which would support the development of professional expertise. As to what kinds of

[4] Kennedy, pp. 130-133

actual learning experiences the intern might have, Kennedy identifies a set of such opportunities which are often associated with clinical teacher education programs and focuses on those which have potential for developing the more subtle expertise of critical analysis and deliberate action.

The latter include case diagnosis, useful in fostering critical analysis; problem analysis which involves the same kinds of expertise as case diagnosis with the added intention of solving a particular problem; and study groups formed to "examine a particular substantive issue related to practice." (pp. 136-140).

When these are added to other forms of learning experiences such as guided practice, internship seminars, support groups, journal keeping, in-class coaching, micro-teaching, they are apt, together, to address the needs of all four kinds of professional expertise teachers must develop.

In summary, the curriculum for interns in a professional practice school must be guided by a frame of reference which includes an understanding of the kinds of expertise one needs to foster in a professional practitioner, and the structures and activities which are inclined to produce those results. Again, as in other issues such as accountability and governance, we do not intend to be prescriptive but rather to indicate what the frame of reference would imply.

INSTITUTIONAL STANDARDS

Perhaps the single most important effect that professional practice schools can have in the effort to improve public education, is through the responsibility it must assume for establishing institutional standards which support its triple mission.

Each of the foregoing sections has included some indicators or characteristics which provide evidence of commitment to one of the goals of professional practice schools.

In an attempt to draw those characteristics together and to ensure consistency within the institution among its goals, we developed a set of self-assessment standards by which institutions might measure their progress toward achievement of their goals. This challenge was undertaken by a task force member, Holly Houston. A "review and revise" process was used. The final statement should be viewed as an open document -- suggestive of the kinds of indicators schools might use to evaluate their commitment to the agreed upon standards. The standards are as follows:

STANDARD 1: Students are provided opportunities to demonstrate their knowledge and know-how in ways that are responsibly diverse, thus providing teachers, parents, policymakers, and students themselves with multiple and authentic indices of learning.

STANDARD 2: Teachers combine the necessary knowledge and know-how to contribute to student success.

STANDARD 3: Teachers understand the mission of the institution and their individual roles and responsibilities.

STANDARD 4: The educational program is shaped by a governing body at the school site; whole policies and procedures are written, available to the public, and responsive to appeal processes.

STANDARD 5: Appropriate assessment procedures for students, teachers (both novice and experienced), and administrative and support staff are established.

STANDARD 6: Provisions are made for professional development activities that build from assessments and accord with the school's plans.

STANDARD 7: Resources provided to the professional practice school are adequate to support a high quality education program for students and teachers and are responsibly managed at the school site.

STANDARD 8: The induction of novice teachers into the teaching profession is structured to provide maximum opportunity for responsible experimentation and reflection on teaching and learning.

STANDARD 9: There is evidence of an orientation to educational problem solving and research that is experimental in nature.[5]

While the indicators of commitment (see Houston, 1988) may be suggestive and not necessarily prescriptive, these standards do reflect the mission of professional practice schools as we have conceptualized them. Beyond the standards however, we also mean to suggest that the establishment of institutional standards is extremely important and the use of those standards in a self-assessment mode can be very useful in the process of institution building.

MAKING A DIFFERENCE

What can keep professional practice schools from becoming "hot house flowers", e.g., excellent institutions with no impact on the quality of schools, teaching and learning beyond the boundaries of their own walls and the individuals they touch?

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[5] See Holly Houston, "Professional Practice Schools: How Would We Know One If We Saw One?", commissioned by the American Federation of Teachers, under this grant.

In order for professional practice schools to have reach, to influence schools, teaching and learning more broadly than just within their walls, there needs to be a built-in commitment of the district and state to the success of the professional practice school and to its leverage on the broader system, as well as a commitment of the institution itself to that broader system.

If professional practice schools are to be exemplars of good practice, or model institutions, others must have access to them and be knowledgeable about what they do. In order for the practices learned in a professional practice school to be spread to other schools, the system must provide hospitable environments open to change through the influence of graduates of professional practice schools. Evidences of commitment from the broader system might be indicated in a variety of ways, including:

1. Dispensation from requirements or regulations at all levels of government which impede the implementation of the program;

2. Collaboration with university programs in the provision of prerequisite professional education;

3. Support from the university for joint faculty appointments for professional practice school faculty members;

4. Support from university in making resources (i.e., library facilities, teaching laboratories, education technology resources) available to professional practice faculty;

5. Opportunities within the system which recognize the qualifications of professional practice school graduates; and

6. Group placement of graduates of the professional practice school.

A commitment of the professional practice school to the larger system may be evidenced by:

1. The development of professional education programs in additional school sites under the supervision of adjunct teaching faculties in those schools;

2. Assumption of responsibility for quality of adjunct programs by the professional practice school;

3. The use of adjunct faculty within the professional practice school;

4. Collaborative arrangements with the university for establishing a research agenda, implementing research programs, training faculty for teaching, research, and supervisory roles; and

5. Development of a research agenda that is informed by the needs of the larger community and dissemination of findings to the community in a timely and useful manner.

It is our expectation that professional practice schools can have the same impact on teaching and on schools which teaching hospitals have had on medical practice and on hospitals.

NEXT STEPS

Professional practice schools do not exist today. Some models of elements of such schools exist, as do efforts to plan and develop what others call professional development schools. (see Levine, 1988).

The need for professional practice schools grows out of the commitment to redesign schools in ways that will support student academic and social learning and knowledge-based teacher practice. Schools restructured to meet these goals will be characterized by a different kind of practice. This practice includes many new roles that teachers have not played in the past and, concomitantly, new responsibilities for teachers. Teachers will, as a faculty and in collaboration with administrators and university faculty, have to agree upon standards of practice. They will have to collaboratively evaluate and review practice in their school; focus on the individual and collective needs of students in faculty-wide forums; organize themselves for conducting research in practice; work together with university faculty; and assess the knowledge base and performance of the intern teachers with whom they work. They will become involved with such functional areas as grading policies, student and teacher assignments, organization or instruction, curriculum design, resource allocations, and scheduling. (Darling-Hammond, 1988).

Their need to become involved in these functions does not grow out of any desire to become quasi-administrators, however. The need grows out of the recognition that these functions are important to the teacher's ability to adequately meet the needs of their students. The teacher's instructional roles will change, too. Ensuring student success requires reflective, analytic, inquiring teacher practice. Teaching will no longer be telling. The teacher will become coach, questioner, facilitator, and organizer. The teacher will be called upon to analyze, solve problems and frame problems, judge, compare, and consult.

Such teaching requires the best use of the knowledge base that exists and the continuous generation of practitioner knowledge produced as a result of professional practice grounded in inquiry. Rote teaching produces rote learning. Teacher-proof materials generate thoughtless practice. The professional practitioner always needs to be asking

questions about what is happening and needs to be able to respond to the answers. As the paradigm of schools shifts from sorting students, controlling behavior, and delivering programs to supporting students, empowering learning and producing outcomes, the skills and strategies of the teacher must change. Empowering students to grow and learn cannot be achieved through standardized practice. It requires continuous evaluation, making judgments and decisions. In order to do this effectively the teacher must have a command of the knowledge base and a disposition toward and skills of continuous inquiry.

But professional practice is not just skills and knowledge; it also embodies a set of values and ways of doing things and interacting with people, especially clients and peers. The institution in which practice takes place must support these values and norms. The relationship between the profession and the institution in which it practices is critical. That institution in medicine is the hospital; in education it is the school. The culture that supports or hinders professional practice is the school culture, not the classroom.

Herein lies the fundamental reason for the development of professional practice schools. There must be an <u>institutional</u> commitment to professional practice and to the socialization of new professionals into practice. It is the school that must have the commitment to educating new teachers. When an intern learns to teach as an apprentice to a master teacher, she is bounded by a notion of practice as classroom performance; this one-on-one clinical experience perpetuates the debilitating isolation that prevents the development of the norms and values of a professional. As long as we continue to educate new teachers without providing the institutional base for their professional development and practice, we

will not build a profession. Furthermore, we will miss the opportunity to build the environment that supports student success, for the same environment that allows teachers to learn also allows students to learn.

The next steps toward the development of professional practice schools need to be taken at the local level. School districts, teacher unions, and universities working collaboratively need to address the question of whether the development of such an institution is desirable and feasible for them. This conceptualization and development of issues related to this institution is meant to serve as a framework to guide the efforts of local groups. The AFT is continuing work in this area with the support of the Exxon Education Foundation. Support for these efforts from the state, national organizations and private foundations ought to be encouraged.

While the planning must be done locally it is not obvious that local districts and universities will be able to financially support those efforts nor is it apparent how these institutions will be funded. The task force did not address this question specifically although some observations concerning funding were made. First, it was generally agreed that the teacher education function needed to be supported directly, e.g., it was not acceptable for it to be an afterthought or a program run without specific, dedicated resources. Second, it was suggested that restructuring the school might in fact free up certain resources, including teacher time which would go toward the support of the professional practice school's triple mission. Third, there was consideration of some alternative funding formulas for professional practice schools along the lines of the practices used to fund teaching hospitals where third party payments are increased to cover the costs of the teaching function. Acknowledging the importance of the professional education function, per student support from the state might be increased in professional practice schools.

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Developing professional practice schools will be an important piece in the school reform picture. They can play three important roles: (1) as exemplars of good practice; (2) as centers of inquiry which contribute to the knowledge base which informs good practice; and (3) as induction schools designed to support and transmit high standards for professional practice. A better education for students can be the outcome.

Efforts to develop them need to be supported to ensure that sufficient time is available to introduce the changes involved. They need to be monitored and documented to ensure that we learn from the process so we can make it work.

References

Darling-Hammond, Linda. (1988). "Accountability for Professional Practice." Unpublished manuscript commissioned by the American Federation of Teachers.

Gardner, W. Knowledge Base for Beginning Teachers Project. Informal communication, unpublished materials.

Houston, Holly. (1988). "Professional Practice Schools: How Would We Know One If We Saw One? A Guide to Self-Assessment." Unpublished manuscript commissioned by the American Federation of Teachers.

Kennedy, Mary. (1988). "Establishing Professional Schools for Teachers." Unpublished manuscript commissioned by the American Federation of Teachers.

Levine, Marsha. (1988). "Background Paper; Professional Practice Schools." American Federation of Teachers, unpublished manuscript.

Schulman, Lee. "Knowledge and Teaching: Foundations of the New Reform." (1987, February). Harvard Educational Review. 57, (1), pp. 1-22.

BACKGROUND PAPER
PROFESSIONAL PRACTICE SCHOOLS

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PART I: RATIONALE

Over the last nine months a task force initiated by the American Federation of Teachers and supported with funds from the Exxon Education Foundation has met to consider the feasibility of developing what we have called professional practice schools.[1]

Professional practice schools are at present only an idea. If implemented, they would be local public elementary or secondary schools specially designed by a collaborative of university, school district, and teachers' unions. Their purpose is threefold: to support student success; to provide a professional induction program for new teachers; and to support systematic inquiry directed toward the improvement of practice. At the beginning of our study we feared dealing with the three missions would be overwhelming. We have come to believe that they are inextricably intertwined.

What are the problems that professional practice schools might address? Why are they important? We believe that professional practice schools address the two issues at the top of the public education agenda today — the problem of how to restructure schools to support student learning and the problems of professionalizing teaching.

These new institutions can be important for the following reasons:

1. They are designed to be the institutional base for teaching as a profession.
2. They replace standardized or prescriptive teaching with professional practice, i.e., reflective, inquiring, and analytical teaching.

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[1] Members of the Task Force were Barbara Agor, Traci Bliss, Pat Daly, Linda Darling-Hammond, Gary Griffin, Louise Sundin, Adam Urbanski, Holly Houston, Ann Lieberman, Tom Mooney, Richard Price, Marilyn Rauth, and Phillip Schlechty.

3. They establish a professional induction program at the school site that is rigorous, structured, institutionally based, and professionally controlled.
4. They can significantly improve the quality of education available to students at risk when located in disadvantaged urban schools.
5. They can influence what happens in other schools as they become exemplars of good practice and as the institution that educates new teachers.
6. They can influence practice in public schools as their graduates are accepted and supported.

Professional Practice Schools and Restructuring

We believe professional practice schools can be viewed as an element in the process of restructuring schools. The creation of a learning-centered school for teachers and students is at the heart of restructuring. Professional practice schools will be models of learning-centered environments and will be places where teachers learn to be thoughtful, reflective practitioners. Not every school will or ought to be a professional practice school. But, when enough of them exist, their influence will be felt as exemplars of practice and centers for the education of professional teachers.

In a 1967 John Dewey Lecture, Robert Schaefer, then Dean of Teachers College, Columbia University, described a vision of schools as centers of inquiry. He maintained that schools where teaching involved continuous learning for teachers were likely to be places where students may learn how to learn. This symbiotic relationship between teaching and learning is central to the idea of the professional practice school. In the

learning-centered school teachers continually experiment, reflect, and inquire into their own practice. Out of this process of inquiry the faculty generates new knowledge. The education of new teachers on site by teaching faculty becomes a vehicle for reinforcing these characteristics, particularly if it is perceived as an institutional role rather than the responsibility of an individual mentor teacher. The teacher education function of the institution encourages a whole-school orientation, the development of a culture of collegiality and public practice; as opposed to individual and isolated practice. We do not propose that all schools should become places that educate new teachers but that they be able to support the kind of professional practice that teachers will learn in the professional practice school.

Professional Practice Schools and Professionalizing Teaching

With respect to professionalization, professional practice schools can have the same impact on teaching that teaching hospitals had on medicine. They can become the institutional base of authority for the profession. The requirements of a profession include the identification of a systematic knowledge base, the presence of a collegial structure, a standard of ethics to guide practice, and a systematic induction into the profession. The professional practice school can provide institutional support for these professional requirements. It can provide that induction process under the supervision of the profession; it can be an institution that upholds the ethical standards of practice; it can provide an organizational structure that supports collegiality; and it can encourage and support the use and generation of that knowledge base.

In that 1967 lecture, Schaefer argued powerfully that schools need to become centers of inquiry because education needs the knowledge that can only be produced by the practitioner in the course of practice. Inquiry-based schools could produce that knowledge. This is as true today

as it was in 1967. Schaefer's argument is compelling. The task, however, remains difficult. (Schaefer, p. 2.)

This reconceptualization of the school, not as a factory, not as a bureaucracy, but as a center of inquiry, is at the heart of the professional practice school. This vision of school embodies a change in the way we think of teacher's work, the student's role, and the education of the professional.

Much of the work of the Professional Practice Schools Task Force has been to bring together a vision of a school that supports student success with those characteristics of an institution dedicated to professional education and reflective practice. What emerged was a set of guidelines for the establishment of such an institution. We considered the conceptual base, the ethical framework, the organizational structure, and the knowledge base that would support the functions of this institution. What follows here is an explanation of those characteristics and how they came to be included.

THE CONCEPTUAL BASE FOR THE PROFESSIONAL PRACTICE SCHOOL

Progressive Roots

The professionalization of teaching and the school as a center of inquiry both have roots in the progressive education movement. Interestingly, the link can be drawn through the work of Abraham Flexner, father of the modern teaching hospital. Ludmerer's history of American medicine, Learning to Heal (1985), describes the influence of John Dewey's progressive philosophy on Flexner's conceptualization of the teaching hospital in the reform of modern medical education. The importance of teaching and learning in clinical settings and the importance of the relationship between research and practice derive from Dewey's conception of the role of knowledge, experience, and practice in the development of the "thinking" individual. The "thinking" individual is one who can analyze, synthesize and make knowledge-based decisions, and has the skills to carry them out. (Dewey, 1904).

Flexner's interest in the application of these principles extended from medical education quite literally to elementary and secondary education. In The Transformation of the School, (1961), Lawrence Cremin describes Flexner's role in the creation of the Lincoln School at Teachers College in 1917. The Lincoln School was an experimental private school that depended heavily on the teachers' involvement in curriculum design and implementation. The philosophy that guided the progressives in education required a trust in the ability of teachers to play a "thinking" role in the planning, development, and implementation of the educational environment and program. The teachers at the Lincoln School did that.

The Winnetka Plan and the Denver Plan of the same era shared the same child-centered view of the school and the concomitant professional role of the teacher was central. The Winnetka Plan, as it functioned in that

school district (not to be confused with a watered-down version "replicated" all over that resulted in a virtual tracking system), was, according to Cremin, "the example par excellence of individualized instruction." (Cremin, p. 298.) The Denver program was characterized by two principles: "an abiding commitment to universal education and a profound faith in the average classroom teacher." (Cremin, p. 299.)

These principles, at the heart of the progressive movement, are embedded in today's efforts to restructure schools. The context in which we are trying to implement them is changed. The obstacles to their implementation are the litany of problems that beset the public schools and an accumulation of efforts that have tried to legislate and regulate teaching. The idea of the professional practice school represents an opportunity to create an institution that supports professional standards and provides clinical education that overrides the barriers to creating schools as centers of inquiry for professional practice. It can accomplish this by creating schools that are for students and for teachers.

A Definition of Knowledge and the Structure of Schooling

Education and schooling have underlying philosophical bases that may or may not be explicitly stated. The design of an institution like a professional practice school must begin with such an explicit statement.

The definition of knowledge underlying the professional practice school accepts the notion that there are many ways of knowing and that learning is an active process. There is more than one way of learning.

A school based on this definition of knowledge casts the learner into an active role. The student and the teacher are expected to perform on the basis of what they learn. They are expected to be able to use what they learn; and, most of all, they are expected to learn how to learn.

These expectations for the learner carry implications for curriculum and the roles of teacher and student.

The Professional Teacher: Two Views

Bureaucratic schools are best served by technical experts. Max Weber expounded upon the concept of the bureaucracy and its demand for a corps of technical experts to manage and do the work of such an institution. The teacher as such a professional, possessing scientific and technical expertise, is consistent with that idea. Many teacher education programs are designed to develop such a professional teacher corps. Most staff development is predicated on the same model -- the teacher as user of empirical research. Entire school-improvement programs are built on the assumption that teachers and researchers are separate; the researchers generate knowledge, the practitioners receive it.

The traditional view of professional practice assumes a linear and hierarchical relationship between teacher and learner and between scientific knowledge and practice. In other words, the practitioner's role is to take the findings of scientifically based research and employ them in practice. There are two major difficulties with this definition. First, it does not provide for the contribution of the practitioner. The teacher is expected to use the theories and findings of research. It does not call upon him to make a transformation of those findings for the real situations, which are often indeterminate and uncertain; and it does not provide for the contribution of experience to professional practice other than in its contribution to making the practitioner a better user of research. Second, this definition does not provide for the role ethics or values play in defining professional practice. Teaching involves continuously making value-laden decisions.

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The role of the teacher in the restructured school envisioned in the reform recommendations of such groups as the Carnegie Task Force on Education and the Economy, the American Federation of Teachers' The Revolution That is Overdue, and embodied in Schaefer's center of inquiry, is really quite different. Embedded in that vision of school is a view of the professional teacher who is not merely a technical expert but one who transforms a knowledge base, reflects on what is happening, and generates new knowledge. This view of professional teaching has implications for teacher education that underlie the professional practice school.

(It should also be noted that it is this view that forms the basis for arguments that schools and the people in them need to be empowered to make decisions and take responsibility for their actions and the outcomes associated with them. The definitions of education, knowledge, teacher, and learner that are at the heart of the restructured school imply that the teacher must be able to inquire, reflect, make choices and decisions, and act upon them.)

Schon's notion of reflective practice fits well into the model of the school as a center of inquiry. (Schon, 1983, 1987.) According to Schon, the reflective practitioner is one who begins with a knowledge base but whose actions are guided by a system of ethics or a set of values and the habits of inquiry, creativity, analysis, and evaluation. Schon describes reflective practice as the "tacit knowing" that allows the practitioner to "scan the horizon, or have a feel for what he is doing." A reflective practitioner can "think on his feet."

"Reflection-in-action," Schon's term for what the professional does when practicing, allows him to deal with divergent situations in a value-laden context. In contrast, the scientific knowledge base used by the professional is convergent in nature. What is the relationship of "reflection-in-action" to inquiry and to research? Schon responds that

"reflection-in-action" is really doing research in the practice context. The practitioner constructs a new theory for the unique case he is confronting. This kind of action is a kind of experimenting and can develop a rigor of its own. Inquiry and action come together in reflective practice. It is at the core of the idea of teacher as researcher.

In summary, at the heart of the professional practice school is the convergence of a number of ideas. They are ideas about the nature of knowledge and what they imply for teaching, learning, and for institutions designed to support those processes. They are also ideas about what teachers do when they are practicing as professionals, not as bureaucratic technicians.

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THE ETHICAL BASE FOR PROFESSIONAL PRACTICE

We have already noted that schools and teaching are value laden and that every decision that is made and action that is taken is an expression of values. Professions, by definition, have a moral structure that is meant to guide the professional's actions. Professionals must agree to uphold this moral structure. The school as an institution ought to support that moral structure. The professional practice school is the place where professionals learn what that structure means in action.

A starting place for developing a moral structure or system of ethics for the practice of education might appropriately be those values that are embedded in education in a democracy. Although they may give rise to varied interpretation and implications, they can reflect a set of core values that can become the basis for the development of standards in the professional practice school. The values should guide professional behavior with respect to students, the profession, and society. It might look something like this: With respect to students, teachers should act in the best interest of the their students. They should act in ways to support student success. Their behaviors should be informed by the best knowledge available. With respect to the profession, teachers should uphold the standards of the profession for themselves and for others. They should not misrepresent themselves or their qualifications for practice. With respect to society, teachers shall be committed to the maintenance of democratic values in the settings in which they teach, including: fairness, decency, justice, and equity. These core values would also be used to measure the appropriateness of other actions that are taken in the name of education, i.e., state mandates, regulations from local districts, textbook development, and curriculum development.

Ethical behavior, however, is not solely determined by an explicitly stated moral code. Mary Kennedy (1987) points out that an additional

source of definition of ethical behavior are the social norms of the school culture. The significance of the professional practice school in this respect is its ability to model the norms of practice that uphold the ethical standards defined by the profession. It is the consistency between the professional standards and "the way things are done around here" that is so unique and important. That brings us to the third area for consideration, the organizational base for professional practice.

THE ORGANIZATIONAL BASE FOR PROFESSIONAL PRACTICE

We have already stated that professions are normally characterized by a knowledge base, a moral framework, and a collegial structure. The institution in which practice takes place ought to support these features; the traditional school does not. The characteristics of the professional practice school are designed to do this. The governance and organization of the professional practice school are designed to support the teachers as the ultimate authority on conditions that affect professional practice, just as doctors oversee decisions affecting medical practice in a hospital. This includes a shared decision-making process among faculty and administration on questions of both policy and practice, with the faculty in control on instructional questions. Collegiality is encouraged by the way in which time is allocated to permit opportunities for frequent and ongoing communication, observation and feedback between peers, joint planning and peer teaching among faculty members. These features, identified by Judith Little (1982) are designed to support collegiality as a norm. Professional accountability, in which teachers are responsible to each other for student outcomes, is supported through opportunities for public practice, joint planning, and review of practice. Assessment procedures extend beyond standardized achievement tests to include profiles of expectations, measures of congruence between expectations and achievement, enrollment patterns, attendance patterns, dropout rates, and exhibits of student learning. Support for reflective practice is provided through allocation of resources (time, use of facilities, accessibility of materials, consultants) to encourage a continuous examination of practice. Teachers are assisted in this process through appropriate record-keeping systems, which are maintained for their use.

In reflective practice teachers are no longer viewed solely as the experts and givers of knowledge. They are truly inquirers. Students, no longer viewed as receptacles for knowledge, become more responsible for their own learning.

In order to support reflective practice the institution must be flexible enough to accommodate the teachers' deliberations, consultations, and innovations. Schon identifies the following characteristics of institutions that support this. There must be flexibility in student groupings and teacher:student ratios to accommodate different learning needs. There needs to be peer interaction among teachers to allow them to communicate their thinking to one another and get feedback from their peers. Reflective practice requires that teachers know how their students think and what influences them to behave in the ways they do. The traditional school functions with a centrally controlled and administered system of accountability and evaluation that is highly quantitative and seeks to be objective. Reflective practice requires more independent, qualitative, and narrative accounts of progress. Supervision in a professional practice school would focus less on controlling or monitoring and more on support and enabling. (Schon, p. 270.)

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THE KNOWLEDGE BASE FOR PROFESSIONAL PRACTICE SCHOOLS

What should people learn in professional practice schools? What should they already know when they enter? How should assessments of their knowledge be made? Embedded in these questions are a set of issues that educators and the broader community have wrestled with for centuries. What is a good teacher? What does a good teacher have to know? How do teachers learn? We must turn to two bodies of knowledge for what answers have been given. Both are incomplete and inadequate, but they represent the range of knowledge from which we must build the professional practice school curriculum.

What is the Knowledge Base for Teaching

What does a teacher need to know in order to be effective? That ought to depend upon what you want the teacher to be able to do. Answers to this question range from, a teacher just has to be very well educated, to, a teacher must have an undergraduate major in education with a specific number of credits in pedagogy, foundations, and methods. In her site visits to twenty teacher education programs, Amarel (1987) found that most teacher education programs she looked at identified a common set of categories that they considered a part of the knowledge base of teachers. These included: (1) subject matter knowledge; (2) empirical research, which included effective teaching research; (3) social science and humanities for content on schools and society; (4) knowledge of models of teaching, conceptual schemes and theoretical constructs of teaching; and (5) knowledge of whatever the state mandated as required teacher education. These were identified by teacher educators involved largely with the academic preparation of teachers. They constitute the range of knowledge that might then be considered prerequisite to clinical teacher education. It is important to note Amarel's observation that there is little emphasis on classroom management, grouping, or teacher beliefs in

the empirical research. Pedagogy for restructured schools, including cooperative group teaching, peer tutoring, reciprocal teaching and coaching, are presumably little in evidence as well. These are the areas teacher educators identify; implicit in their response is an unspoken but strong conceptualization of the teacher's role.

If one were to conceptualize the research bases that one might want for the student in a professional practice school, the following categories might be useful.

The first category would be what we know about how individuals, specifically children, learn. The second area is what we have learned about the conditions that support learning, including the research on effective schools and effective teaching and especially including those pedagogies that are related to teaching in restructured school environments, i.e., cooperative group learning, use of educational technologies, peer tutoring, coaching.

A third distinct research base, important to the practitioner, is growing out of an examination of the pedagogical requirements of specific content areas. This research focuses on identifying the effective ways of teaching the main understandings or concepts of a particular subject area such as physics or writing.

A teacher intern entering the professional practice school may be expected to have this knowledge base as well as being prepared in the subject area he will be teaching. In order to be able to use it, however, he must be able to "learn in action." "Learning in action" is a particular kind of professional expertise; and for knowledge of how to develop this, we must turn to another area, that of educating professionals and what we know about that.

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What Is Known and What is Believed About Professional Education

Mary Kennedy's (1987) review of the professional education literature led her to isolate four types of expertise that may be the goal of a professional education. The fields she looked into were medicine, law, engineering, and architecture. The kinds of expertise were: (1) skills or technical abilities; (2) application of general principles and theory; (3) critical analysis; and (4) reflection, or what Kennedy calls deliberate action. A given profession may emphasize one kind of expertise over another. Law for example, concentrates on critical analysis in the education of new lawyers, architecture emphasizes deliberate action. It is in focusing on this latter kind of expertise that the professional practice school is unique, i.e., the expertise of the reflective practitioner. How does one develop this ability, these habits of mind, these sensitivities? In order to do that, the teacher intern must develop the skills of what Shulman calls strategic analysis, or Schon describes as reflective inquiry. To help the novice begin to do this is the function of the professional practice school. Schon identifies a set of conditions that must be in place in order for the professional to engage in reflective practice. These conditions create a common ground for inquiry and communication. They include common language that is used to describe reality and to conduct inquiry; commonly held ways of assessing reality; and recognized, overreaching theories that are used to make sense out of phenomena. Fourth, there must be what Schon calls "role frames" which practitioners use to determine what they will do and to define the boundaries of the setting in which they work. Some work has already begun in preparing teachers for reflective practice. The findings of Zeichner, et al. (1987), at the University of Wisconsin, in working with student teachers is an example. However, those efforts are seriously hampered by the lack of a supportive institutional context for the development of reflective practice. Reflective practice requires collegial interaction and a structure that supports inquiry. It cannot be developed or

sustained in isolation. The developers of professional practice schools will have to bear these requirements in mind as they create these institutions. That is the challenge.

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IMPLICATIONS FOR EDUCATING TEACHERS

Since reflective practice defines a broader arena of usable knowledge than scientifically based professional knowledge, educating the professional must go beyond the transmission of scientific technical knowledge and the training in skill to use it. Schon suggests that kinds of knowing in professional practice include the art of problem framing, the art of implementation, and the art of improvisation. Taken together they affect the way the individual practitioner handles situations that are uncertain, indeterminate, unique and conflict ridden.

Some professional schools, business, law, and medicine, specifically, have endeavored to help the professional learn to "think like a doctor or think like a lawyer ... ." Professional knowledge to Schon, and we would agree, goes beyond that. Thinking like a teacher, or thinking like a lawyer, implies a closed system. A right way is presumed. Although this might be a beginning, it cannot be the end. It will not be sufficient for professional practice. The ability to think divergently is essential and is what makes the difference. The relationship between the professional knowledge taught in schools and this "knowing in action" is not clear. What is clear is that one assumes the other. The knowledge base for professional practice as it is being identified, for example, in the AACTE project, Knowledge Base for Beginning Teachers (KBBT), might be thought of as prerequisite to a focus on the development of reflective practice.

Characteristics of the Clinical Education Experience

The current model for clinical teacher education programs is grounded in a conceptualization of teaching as craft. The practice teaching experience is designed for the novice to observe and imitate the experienced teacher. Through repeated practice it is presumed that the learner will get it right. The cooperating, or mentor, teacher is

expected to be able to pass down to the student teacher those "tricks of the trade" that will make him successful in the classroom. It is essentially an apprenticeship model that has been in use in teacher education since the 17th century. The apprenticeship model emphasizes the mentor or model teacher rather than the intellectual work of teaching. It is as Linda Darling-Hammond has pointed out -- idiosyncratic and necessarily limited.[2] Teaching by rule of thumb or imitation is not professional practice as we have conceptualized it.

Professional practice is characterized by reflection, experimentation, and inquiry. It involves having a knowledge base upon which to make professional judgments and the skills to implement those decisions as instructional strategies. It is predicated on a system of values and governed by a set of norms. In order for the student teacher to be able to internalize those values and norms and to develop those skills and learn the practices of reflection and research, he must be in a learning environment that is designed to support that process. Practice teaching in a traditional school setting will not be able to provide that environment. Only an environment that itself supports those practices and that is especially committed to the education of teachers can provide the appropriate clinical education for professional teachers.

Education for Uncertainty

One of the characteristics of the clinical education experience in the professional practice school is a focus on helping the new teacher deal confidently with the uncertainties of the practice. It is often the case that teachers, working in isolation, tend to blame themselves for failures that really are the result of an inadequate knowledge base. They believe

[2]For a discussion of student teaching for professional practice, see Michael J. Dunkin, ed., The International Encyclopedia of Teaching and Teacher Education, 1987, Pergamon Press, Oxford, "Student (Practice) Teaching," by E. Stones.

they ought to be able to do something, or ought to know something that is not really possible. Because teachers have little opportunity to work with colleagues and are not trained in collegial settings, they do not know the extent of others' knowledge and ability and they therefore maintain unrealistic views of what may be possible. Once they appreciate they are working with an inadequate knowledge base, however, they need to know that it is possible to function effectively nevertheless. Their lack of opportunity to learn this from mentors and peers is a major inadequacy in their training.

Some medical school experiences that have been studied (Fox, 1957) appear to be designed to make students aware of the their own limitations but, at the same time, take responsibility for their own actions. According to Fox, they come to realize that they cannot know everything there is to know; that not everything they need to know is available; and that they can still function under these limitations. How does this learning come about? The process of education and the curriculum of the clinical experience for third- and fourth-year medical students in one program studied are designed to have this outcome. The medical student learns that: (a) he can function on the basis of incomplete knowledge; and (b) much of the inquiry and experimentation that is done by teaching hospital faculty grows out of this uncertainty. The student learns that inquiry is a part of professional practice. Some of the experiences of the medical student emphasize for him the limitations of the field. Fox describes the autopsy experience, for example, as central to the student's learning for uncertainty. Fox identifies three essential understandings that emerge from that experience: (1) the student learns that the physicians in charge of the case could not save that patient; (2) he learns that death cannot be precisely predicted; and (3) he learns that causes of death are messy -- they often are not easy to pinpoint. Teachers in training, or in practice, for that matter, have no parallel opportunities to learn that the best knowledge available is often not

fully adequate, and that colleagues can function competently in spite of that inadequacy. (Fox, pp. 216-218).

The medical student learns to cope with that uncertainty partly by building as much of a knowledge base as he can. This contributes to the sense of growing competence. He begins to feel that the inadequacy is not personal. Through observations of his peers and his teachers he realizes that they too are often uncertain, further helping him to cope with the feeling. In those observations he learns that his teachers cope with that uncertainty directly and that inquiry is a chief way of coping.

When the student moves to the clinical setting, his chief task is to find an organized way to learn in the clinical setting; "learning in action" is a major part of professional practice. In the clinical setting students are organized into different kinds of learning groups for different tutorials associated with different clinical experiences. They may work in groups of two, five, or more, depending upon the setting and what is to be learned. His relationship with the teaching faculty becomes very important. They are the providers of much of what he has to learn. He listens to them reason out loud.

In the process of learning to cope with uncertainty the medical student learns some very important principles of professional practice. He learns that inquiry is an important part of that practice; that inquiry and experimentation is the way the professional deals with that uncertainty. The second principle he learns is that learning in a clinical setting is different from classroom learning and is an integral part of professional practice. The third principle he learns is that what the practitioner knows is an important part of what he, the student, has to learn; the practitioner's knowledge is different from the book learning that has preceded it and accompanies it.

The experience of the intern teacher in a professional practice school must be structured to support these kinds of learnings. In order to do that there must be a whole-school orientation, norms that support collegiality, opportunities for public practice, and some sort of support system for the interns to establish a sense of community among themselves as well as within the school. Interns must be grouped for different experiences and for a variety of formal instructional experiences. It should be a structured and purposeful program. Professional practice is not learned by osmosis.

Institutional Requirements for Professional Education

In his discussion of educating the professional, Schon (1987) points out that the fit between this kind of professional education and the traditional university is problematic. (pp. 309-310.) Whereas the university is grounded in academic theoretical and applied research, reflective practice is grounded in inquiry in action. It requires the knowledge base that the university can provide but the structure of the university itself and its norms and culture do not support the kind of educational experience implied by the characteristics of reflective practice. On the other hand, a history of successful school/university collaboration does exist in many places. In some important ways the professional practice schools can be the vehicle that supports this collaboration. In any event, it is important that professional education have its own language, its own traditions, its own systems and expectations, distinct from the academic environment of the university. It needs to develop a structure that models and values public practice, reflection and collegiality. These are all arguments for the establishment of the professional practice school.

PART II. THE CONTEXT FOR PROFESSIONAL PRACTICE SCHOOLS

The first part of this paper described the rationale, the conceptual base, and the ethical, organizational, and pedagogical bases of the professional practice school and their implications for teaching and teacher education. Part II will address the context for the development of such institutions.

"Context" refers to three factors: the environment created by the education reform movement of the 1980s (which is largely supportive of the idea of professional practice schools); the legislative and political climate in the states (which is moving towards increasingly rigid programs for teacher induction that do not include many of the positive aspects of the professional practice schools); and the development of programs that are in some way models for professional practice schools. We argue that these three factors are important in assessing the viability of professional practice schools.

There is a growing tension between, on the one hand, the recognized need to restructure schools and professionalize teaching, and, on the other, the efforts undertaken in many states that have resulted in more standardization and control. The professional practice school can exploit that tension; it offers a strong answer to the concerns of the reformers, and a powerful alternative to the often misguided solutions of the states.

The Education Reform Movement of the 1980s

Each of the three most recent studies that addressed teacher education reform (the Holmes Group, the Carnegie Report, and the Rand Study) proposed some model of a professional practice school. The Holmes Group report, Tomorrow's Teachers, proposes professional development schools that would "connect schools of education with schools." The Holmes Group

offers a rationale for their development and a set of principles upon which they should be founded:

> The improvement and professionalization of teaching depend ultimately on providing teachers with opportunities to contribute to the development of knowledge in their profession, to form collegial relationships beyond their immediate working environment, and to grow intellectually as they mature professionally. The improvement of teacher education depends on the continuing development of systematic knowledge and reflective practice. These two imperatives lead Holmes Group institutions to commit themselves to establish Professional Development Schools and working partnerships among university faculty, practicing teachers, and administrators that are designed around the systematic improvement of practice.
>
> These Professional Development Schools, analogous to teaching hospitals in the medical profession, will bring practicing teachers and administrators together with university faculty in partnerships based on the following principles:
>
> Reciprocity, or mutual exchange and benefit, between research and practice;
>
> Experimentation, or willingness to try new forms of practice and structure;
>
> Systematic inquiry, or the requirement that new ideas be subject to careful study and validation; and
>
> Student diversity, or commitment to the development of teaching strategies for a broad range of children with different backgrounds, abilities, and learning styles.

(Tomorrow's Teachers, pp. 66-67.)

The Holmes Group conception emphasizes the university/school relationship and meeting the need to extend knowledge and effective practice through the establishment of schools as centers for inquiry.

The Carnegie Report proposal for the establishment of "clinical" schools similarly emphasizes the importance of forging links between elementary and secondary schools and schools of education and, Carnegie adds, arts and sciences departments. Their proposal identifies clinical schools as the site for the second year of a two-year graduate program in teacher education. The first year includes course work and internship, concurrently. The second year is a residency in a school with the

candidate teaching under the supervision of a Lead Teacher. Lead Teachers are envisioned as holding joint appointments in both the school and graduate school from which the residents come. Their description stresses both the opportunities for reflection on teaching, i.e., a learning environment for teachers, and the existence of an environment that models good practice:

> "Clinical" schools, selected from among public schools and staffed for the preparation of teachers, must be developed to make this successful. These institutions, having an analogous role to teaching hospitals, should be outstanding public schools working closely with schools of education. The Lead Teachers in these schools should hold adjunct appointments in the school of education and serve a core instructional staff in the Master in Teaching degree program. The clinical schools should exemplify the collegial, performance-oriented environment that newly certified teachers should be prepared to establish. By connecting elementary and secondary education and higher education in a much more direct way than is typically the case now, these new institutions will create a valuable linkage between the elementary and secondary schools, the schools of education and the arts and sciences departments.

(Carnegie Report, p. 76.)

The recent Rand Study (1987) on teacher recruitment stresses the professional as well as the educational dimensions of what they call the induction school. Furthermore, the Rand Study specifically recommends that induction schools be established in high-turnover schools typically found in inner-city neighborhoods. Such a placement would provide a stable, highly skilled core teaching faculty in schools most in need of them. In those schools there is now little incentive for tenured teachers with seniority to remain. The study describes induction schools:

> Our analysis suggests that districts should designate high-turnover schools as "induction schools" -- schools that will be staffed by a mix of highly expert seasoned professionals and beginning teachers. The purpose would be to provide a supervised internship (including both assistance to and assessment of beginning teachers) while giving the students a better education. Although a variety of models may be appropriate, heavy staffing should be a key feature. The benefits would include:
>
> * Supervision for beginning teachers with eased entry to teaching, better preparation for teaching, and reduced attrition;

* An attractive assignment for senior teachers that recognizes and uses their talent and experience;

* A setting wherein first-year teachers could be efficiently and effectively evaluated; and

* More resources and more stable teaching for disadvantaged children.

The induction school can advance teaching as a profession. It is based on the idea that, although the university can educate the prospective teacher, a teacher can become fully prepared only through extensive, supervised classroom experience. In the induction school, seasoned veterans can help induct novices into the profession.

(Rand Study, pp. 95-96.)

Each of the proposals envisions professional practice schools as having an important impact on professionalization of teaching. Each recognizes it as an opportunity to create restructured environments in schools where both teachers (experienced and novice) and students can learn. To the extent that these studies are influencing the reform agenda, professional practice schools are very much on the horizon, with growing acknowledgments that they are an institution whose time has come.

Mentor and Induction Programs

Most states have taken some action towards establishing teacher induction programs. According to a 1986 study by Hawk and Robards, 31 states and the District of Columbia had programs in planning, pilot, or active stages; in their October 1986 survey, the AACTE found that only eleven states had "no activity reported" in the area of teacher induction programs. The nature of these programs varies greatly from state-mandated competency assessments to district-initiated mentoring arrangements; they range from abstract ideas in the minds of administrators to fully implemented three- or four-year-old systems.

Three forces seem to be contributing to the states' efforts to develop teacher induction programs: the drive for accountability and teacher testing, the development of career ladder programs, and the recognition on

the part of many that beginning teachers simply are not receiving the support they need. Programs whose instigation came from the drive for accountability tend to be state imposed (rather than locally elected) and highly mechanistic in their conception of what constitutes an acceptable level of performance for a beginning teacher. Programs whose instigation came from the development of career ladder programs or from the recognition of the need for beginning teacher support may be either statewide or local, and either evaluative or supportive.

Many of the most-established teacher induction programs are solely evaluative and mandated on a statewide basis. Georgia, for instance, evaluates all new teachers six times during their first three years in the classroom. The evaluation team includes an external evaluator, a peer teacher, and the principal of the school at which the beginning teacher is employed (this, as Linda Darling-Hammond points out, confuses certification and hiring by placing the employer in the dual role of school and state representative). The main purpose of these evaluations is to determine that the teachers have mastered the 14 competencies of the Teacher Performance Assessment Instrument (T-PAI). Similarly, Mississippi requires beginning teachers to demonstrate ability in 16 generic competencies, determined by the Mississippi Teacher Assessment Instrument (M-TAI). A support group is recommended but not required.

Missouri's recent "Excellence in Education" act exemplifies a state-mandated program linked to a career ladder. Due to be implemented in September 1988, the plan's reforms include a four-tiered career ladder beginning with a two-year provisional certificate, the creation of professional development committees to support beginning teachers in their first assignments, the mandate that anyone teaching in a teacher education program must have direct and periodic involvement in the public schools, and the requirement that universities take responsibility for the success or failure of their alumni/ae for two years following graduation.

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University faculty met recently to discuss their compliance with the program; numerous initiatives are being taken, ranging from the creation of fifth-year training programs, to the revision of the general education curriculum, to the creation of joint appointments in teaching and the arts and sciences. The state is a good example of one where a lot of thinking about education has been suddenly thrust upon the state by its legislature; how individual districts will respond to such a hierarchically imposed impetus for change remains to be seen.

Connecticut and Pennsylvania offer two further examples of career ladder-initiated induction programs. Under legislation for 1988-89, all new Connecticut teachers will be issued initial certificates, good for one year; renewal, in the form of a six-year provisional certificate, will depend upon successful completion of an "internship" and satisfactory assessment by a team of evaluators. The provisional certificate will become a professional certificate upon completion of a master's program; the professional certificate must be renewed every five years, during which time the teacher must complete 90 hours of graduate training. This year, Hartford is piloting the teacher induction program. Twenty new teachers are involved. Each is assigned to a mentor who is chosen by the Union's Professional Issues Committee (on the basis of his resume and peer recommendations) and trained by the state of Connecticut. In addition, the beginning teacher is assigned a team of assessor educators who observe him six times throughout the year and, in conjunction with the mentor teacher, evaluate the new teacher's capacity to teach. If he is deemed qualified by this panel, he receives a provisional certificate.

Pennsylvania's program is already in place. Under the state board of education's requirements (supported by the state legislature), every school district was to set up an induction program for new teachers by June 1987. The program is part of Pennsylvania's new certification requirements. New teachers receive an Instructional I certificate, good

for three years. Upon completion of three years teaching, 24 course credits, and supervision under an induction program, they are issued a permanent certificate, which is good for five years and renewable upon evidence of professional development. All induction programs include a mentor relationship between an experienced teacher and a beginning teacher; the role of the program is supposed to be supportive rather than evaluative. The exact role of the mentor is left to the discretion of the district; in some districts, there are five beginning teachers to each mentor; in some, only one. Both mentors and interns receive release time in order to participate in the program.

In contrast to these three state-mandated, career ladder-linked programs, New York offers an example of a state that has established its induction program in response to the needs of beginning teachers, and has left the choice of participation up to the individual districts. In 1986-87, 24 New York districts received grants to develop induction programs; this year, 29 districts have received such grants. Communities are encouraged to experiment with effective techniques, so long as they stay within the framework established by the state legislature. The framework requires that all beginning teachers be paired up with an experienced teacher (mentor) selected by the superintendent from a list drawn up by the local bargaining unit, that both interns and mentors receive release time (20% for the intern; between 10% and 100% for the mentor) in order to observe each other at work in the classroom, and that both specialize in the same discipline. Beyond this, districts are free to experiment. Some have chosen to make the mentor-intern relationship one-to-one; others have found it more effective to assign one experienced teacher to a number of interns. Gerald Mager, the statewide evaluator for the program, attributes the success of the induction program to its voluntary nature and its small-scale implementation.

Discussion

All of the examples listed above fail to offer a comprehensive answer to the problems of beginning teachers. States such as Georgia and Mississippi (as well as Florida, Kentucky, North Carolina, South Carolina and Virginia) whose programs seek to answer the public's calls for accountability by requiring that all new teachers demonstrate mastery of up to 16 "competencies," are perhaps the most problematic. Relying on a limited number (generally two or three per year) of on-site visits by a team of assessors, the states seek to assure their citizens that their new teachers are capable educators. But, as Wise and Darling-Hammond point out, the air of objectivity that surrounds these evaluations is illusionary. The assessment technique assumes that good teaching is based on mastery of a small number of easily quantifiable skills whose presence or absence can be determined by tallying up how many times the teacher being evaluated performs some discrete action on an arbitrary day. Such an assumption is contrary to the conclusions of the 1979 Beginning Teacher Evaluation Study. By perpetuating the public's notion of teaching as a set of straightforward skills, such programs are actually harmful to the advancement of teaching as a true profession.

More positive, but still a long way from ideal, are the programs, such as Connecticut and Pennsylvania (as well as Toledo, Cincinnati, and certain districts in California, among others) that seek to link induction to a larger career ladder. In many ways, such programs are efforts to professionalize the field of teaching by providing recognition to those who have been working in it for many years. Often, they pair beginning teachers with experienced mentors. This, too, is a statement of professionalism, for it asserts that the responsibility for determining what good teaching is should lie in the hands of experienced classroom educators, rather than with outside administrative and state observers. In addition, such programs encourage continued growth for the mentor as well as the inductee.

Unfortunately, mentor programs are often poorly administered; there is little control over the quality of the mentors, who are sometimes chosen simply on the basis of how many years they have been teaching. In addition, the resources necessary for such programs to operate effectively, such as money for release time, are rarely allocated. Furthermore, mentor programs are generally one-on-one rather than whole-school oriented. This is limiting in a number of ways. The beginning teacher is exposed to only one method of teaching and one person's criticism and advice, that of the mentor; this means that his or her induction into the profession is largely personality dependent. The model also suggests that teaching is a craft to be learned as an apprentice, rather than a profession to be learned from a community of practitioners. In addition, mentor programs do not generally produce networks of peer support, either among new teachers, or among the mentors; this means that valuable opportunities for collaborative understanding are lost. Furthermore, mentor programs do not create the kinds of institutional changes that are necessary to support professional practice. Hence, induction programs linked to career ladders in which qualified veteran teachers earn both responsibility and prestige for guiding newcomers through the nuances of teaching are valuable first steps in the move towards professionalism. It is important, however, that we not let them be mistaken for crossing the finish line.

Models

In the last four or five years, at least four programs have been launched that embody elements of a professional practice school. Several more (such as Albuquerque and Puget Sound) are in their planning stages. The four models discussed below avoid many of the pitfalls of strict evaluation and one-on-one mentoring, while maintaining their advantages. All serve to reassure the public of the quality of teaching in the

schools, and all seek to encourage the continued professional growth of the teachers involved. Their uniqueness lies in the fact that each exists as an entire institution devoted to the task of helping teachers become better at what they do, without taking them outside of the school context. None of them truly represents what we envision a professional practice school would be. We offer brief descriptions of the programs below because they complete the context we have been trying to provide; they show us what people have learned in their attempts to create such programs, and they invite us to consider what sort of environment should be chosen as the site for development of a professional practice school.

Schenley Center. Schenley High School has served for four years as a center for staff development for the high school teachers of Pittsburgh. A fully operating urban high school with 1,000 students, Schenley was charged in 1983 with the additional fourfold responsibility of refining and expanding teachers' instructional skills, increasing teachers' sensitivity to adolescents and modern youth culture, updating teachers' knowledge in their specific content areas, and providing teachers with an opportunity for personal and professional enrichment. As of June 1987, Schenley had provided seminars and staff development for almost all of the city's 900 high school teachers in its "effective teaching" technique. At present, the program is at a transition point; having trained all of Pittsburgh's high school teachers.

Each teacher in the Pittsburgh schools spent eight weeks at Schenley. He was required to undergo a two-week intensive training program to learn Madeline Hunter's "effective teaching" method. For the next six weeks, the visiting teacher was assigned to an already-trained Schenley teacher, responsible for observing the visitor as she practiced the new techniques, and for providing feedback utilizing an instructional and evaluative tool (PRISM).

The goal of Schenley's program is teacher empowerment and professional development. It was developed with the direct participation of teachers in the district. Through a collaborative agreement all Pittsburgh high school teachers were required to attend Schenley.

One criticism made of Schenley's program is that it attempted to impose one model of good teaching (the Hunter-based PRISM program) on all teachers. Judy Johnston, the program's director, maintains that this served a valuable purpose. That was to give the teachers a common vocabulary with which to discuss what they do in the classroom. Others disagree. Regardless of the merits of PRISM itself, it is important to recognize the limitations of imposing any specific model of practice as the way to teach. Recognition of teaching as a profession brings with it the realization that good teaching is far too complex to develop through imposing a specific model upon an entire district.

Several important contributions to the emergence of professional practice schools are made by the Schenley experience. First, Schenley pioneered the role of the clinical resident teacher. They demonstrated the importance of collaborative planning and the requirement for teachers to be very involved in implementation. Another valuable element of Schenley's program was the opportunity that it offered teachers for collegial interactions with their peers. For the first time, many of the teachers realized that the problems they experience within their classroom and schools are faced by others; to hear about other solutions was extremely helpful to participants. Increased collegiality and more shared problem solving is reported among Schenley teachers themselves. Schenley director Judy Johnston reports that the Schenley Center has provided a common base of experience to the Pittsburgh teachers and has influenced the development of a commitment to school-based staff development and shared decision-making in the district. It has led directly to the Centers of Excellence Project which supports this commitment.

Jefferson County Public Schools/Gheens Professional Development Academy. The JCPS/Gheens Professional Development Academy is the administrative and intellectual center for a network of change in the Jefferson County Public Schools in Louisville, Kentucky. The mission of the Academy is threefold: to provide leadership for the restructuring of schools as places that are learning focused and success oriented; to provide technical assistance, training, support, and programs aimed at professional development of teachers and administrators; and to serve as a focal point for the movement of Jefferson County into a leadership position in developing strategies for maintaining a high-quality work force in public schools. (Schlechty, in press.) To achieve its mission, the Academy pursues activities ranging from serving as a curriculum resource center for the district to offering inservice programs for school principals.

One of the Academy's projects has been to provide a conceptualization of "Professional Development Schools," as schools that are "staffed in a way that is supportive of the dual missions of a high-quality education for children, and high-quality clinical training experiences for teachers and administrators." ("Professional Development Schools," a description issued by the JCPS/Gheens Academy.) Both JCPS teachers and administrators, as well as Academy staff, worked under the leadership of Phillip Schlechty to define professional development schools, using the teaching hospital as a model. Designed to be exemplars of good practice as well as centers for induction into the school district, professional development schools will consider not only internal affairs, but also their relation to the district as a whole, when they make decisions. Twenty-four Jefferson County schools are involved in the project as pilot sites.

The schools are designed on the basis of a vision of schooling that assumes that the primary purpose of school is to engage students in knowledge work that will lead to outcomes valued by the community. The goal of school is to have students be successful in such work. The concept builds on the notion of the work in schools as knowledge work, and the organization in which it takes place is designed to model those characteristics of the knowledge industry. The role of the teacher is to manage and facilitate the work of students.

The Gheens Academy work has entailed careful and extensive planning involving the building of consensus among the faculties involved as to the values and standards that were to be embodied in the professional development schools. The 24 schools that are now involved in the process of restructuring themselves to be professional development schools on a voluntary basis have the support of the majority of their faculties and administration. (This, as we pointed out above, is an important factor in the New York induction program's success.) A statement of standards for the professional development school as an exemplar of good practice was agreed to in May 1987. The statement of vision, beliefs and objectives that was agreed to is summarized below. The vision states that the purpose of professional development schools is to help JCPS become a place where every leader is a teacher, every teacher is a leader, and every student is a success. The beliefs include the following statements:

1. Student success is the goal of all school activity.
2. Students need to be challenged and need to learn to pursue difficult tasks and persist with the tasks at which they are unsuccessful.
3. Learning is an active process.
4. Teachers are leaders, and principals are leaders of leaders.
5. The business of the school district and the state is to assure that each school unit operates under optimal conditions and produces optimal results.

6. Staff success results from motivated and competent people working in an environment that is committed to their success, continuing growth, and development.

The objectives cluster around the following:

1. Shared Vision
2. Shared Decision Making
3. Success Orientation
4. Results Orientation
5. Flexibility; and
6. Support.

(Schlechty, in press.)

The statement is included here because it is important to note that the professional development school envisioned is really based on a reconceptualization of schools from the bottom up. In this important way it is very much like the professional practice school we are describing. The people involved in the Gheens Academy stress the radical changes that are embodied in these principles and they stress equally the long-term process of making those changes. They do not occur overnight nor are they accomplished by fiat. As a model for the professional practice school development process, they are very useful. (Schlechty, P. C., Ingwerson, D. W., & Brooks, T. I., (1987).)

Dade Academy for the Teaching Arts.[3] Dade Academy for the Teaching Arts (DATA) is a joint project of the United Teachers of Dade (UTD) and the Dade Public Schools. In addition, the Teacher Education Center (TEC), district planning and advisory committees, the Parent Teacher Student Association (PTSA), and community representatives are involved with the program. It exposes outstanding, experienced teachers who have been given nine-week sabbaticals by their schools to the "state of the art" in

[3]Interview with Marie Mastropaolo.

teaching, providing seminars and colloquia in such areas as critical thinking skills, educational technology, gender disparity, and motivational techniques for a changing society. Externs, as participating teachers are called, are also encouraged to pursue research and produce written material during their sabbaticals. The program, according to its description, is designed to "energize, revitalize and enhance the professionalization of teachers."

This is DATA's first year, and it currently operates out of two trailers on the campus of Miami Beach Senior High School. A staff of eight teachers with reduced loads serve as the Resident Teachers, and a group of 16 Adjunct Teachers are "roving ambassadors of good teaching," that is, substitutes for the externs during their nine-week sabbaticals.

DATA meets many of the criteria of a professional practice school. It is committed to providing innovative professional training and is premised on the status of its faculty as professionals. It involves many members of the community and is connected to the school system as a whole. DATA externs might perform research or develop educational curricula.

In crucial ways, however, DATA is not a professional practice school. Most importantly, it is not a school. Although it aims to provide quality teaching of students by renewing the commitment of already excellent teachers, it is not directly involved in instruction. Research plays only a small part in DATA's conception. Finally, the program does not aim to define standards for induction into the profession.

DATA is a powerful example of how a district's commitment to teacher renewal can produce drastic changes. It is encouraging to see that an entire community has taken the professionalization of teachers seriously. Aspects of DATA's program, such as its emphasis on exposing experienced professionals to new research, might easily be incorporated into a professional practice school.

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Alternative Professional Teaching Project (Wheelock College and Edward Devotion School in Brookline, MA). The Alternative Professional Teaching (APT) program is a collaborative effort between Wheelock College and the Edward Devotion Elementary School in Brookline, Massachusetts, that seeks to provide an alternative to the traditional student teaching model. Three Wheelock master's degree candidates serve as full-time intern teachers in a restructured third- and fourth-grade classroom, under the supervision of four members of the Devotion faculty. This experience serves as their induction into the profession by providing them with the opportunity to teach in a carefully controlled nonthreatening environment under the supervision of experienced teachers who provide both theoretical and practical support and criticism.

There are characteristics of the APT program that are like our conception of a professional practice school. The faculty team is responsible for the design and delivery of the intern's graduate seminar. Other school faculty are often engaged to teach these seminars. The time is structured to allow for three planning sessions for the team every week. Wheelock and Devotion faculty share supervision of the interns. Elements of group practice, support for collegiality, and faculty decision making are evident in this project.

Participants emphasize the impact the project has on the Devotion faculty -- providing them with an opportunity to "grow as teachers without leaving the profession." The APT project is described as "[Massachusetts'] first elementary level professional development school" with a commitment from the state to encourage the development of others.

It may be a useful model for building professional practice schools incrementally as "schools within a school," a strategy that is being used, for example, by the Coalition for Essential Schools.

Discussion

Although these state initiatives and models illustrate the concern for reform in teacher education and the need to establish a systematic induction process for the teaching profession, with the exception of the Gheens Academy and perhaps the Wheelock/Devotion School, there is little about them that speaks to the need to reconceptualize the school and the teaching profession. With the exception of Gheens, they do not focus on the school as the institutional authority base for the profession or, for that matter, as the base of responsibility for clinical teacher education.

The state-mandated induction programs provide a confusing and sometimes conflicting environment for the development of professional practice schools. One important issue to bear in mind is the distinction between induction into the profession, induction into employment, and induction for certification. The states that have a mandated induction program for licensure put the employer in the conflicting roles of employer and state evaluator. Some confuse the evaluator role of the employer with the supportive role that is really necessary for the novice teacher. They are, for the most part, heavily based on the mentor model, which is itself grounded in a notion of teaching as craft, and they tend not to have a whole-school, institutional base for induction. There is little control over the quality of experience that the novice may have and a great variation in the preparation and qualifications that the mentor may have for the role. Additionally, conditions under which mentoring is done vary considerably.

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The professional practice school as we have conceptualized it is a preemployment clinical education experience. It is meant to be induction into the profession and is therefore controlled by professional faculty. It may be thought of as a qualification for full certification, with provisional certification a prerequisite for participation. Teaching faculty (who at some point will be board certified) will attest to the intern's ability to meet preestablished standards and to the intern's having successfully participated in predetermined activities and experiences.

There is a difference between top-down, technically oriented induction programs, largely implemented through individual mentors, and the professional practice school with institutional responsibility for teacher induction, professionally controlled and characterized by induction for professional, reflective practice. The difference reflects the tension between the reform agenda for restructuring schools and professionalizing teaching, which requires grassroots determination, and the tendencies of states (the key implementers of reform) to control through mandates, regulations and requirements. This can be an obstacle to developing these institutions. On the other hand, the recognition, in some states, of the important changes that professional practice schools can support is encouraging. The same is true in certain districts. Collaborations are now being planned in Albuquerque between the teachers' union, the University of New Mexico, and the school district, and in three districts in Indiana involving the teachers' unions, school districts, and the University of Indiana. The experiences of the Gheens academy in Jefferson County, Kentucky, are very significant steps in the implementation of this concept.

What is certain is there can be no significant change in schooling without reform in teacher education. Research and experience in teaching and in other professions as well point to the central importance of the

clinical education of the practitioner. Up until now, this experience has been at best idiosyncratic — sometimes excellent, sometimes unproductive. It has never been the major purpose of any of the institutions that had a part of the responsibility for it -- not the university, not the school district, and not the state. (Schlechty, informal communication.) Professional practice schools give to clinical education the importance it deserves and places responsibility for it in the school site, with professionals, where it belongs. It combines the expertise and interests of the university, the district, and the profession in the interests of ensuring professional education.

References

American Association of Colleges for Teacher Education. (1986). Teacher education in the states: 50-state survey of legislative and administrative actions. Washington, DC: State Issues Clearinghouse.

American Association of Colleges of Teacher Education. Knowledge Base For Beginning Teachers Project.

American Federation of Teachers Task Force. (1986). The Revolution that is overdue. Looking toward the future of teaching and learning.

Berliner, D. C. (1984). The half-full glass: a review of research on teaching. In P. L. Hosford (Ed.), Using what we know about teaching (pp. 51-84). Alexandria, VA: Association for Supervision and Curriculum Development.

Brooks, D. M. (Ed.). (1987). Teacher induction -- a new beginning. Association of Teacher Educators. Reston, VA.

Carnegie Task Force on Education and the Economy, 1986. A nation prepared: teachers for the 21st century. New York: New York Carnegie Corporation.

Clark, C. M., & Peterson, P. L. (1985). Teachers' thought processes. In M. C. Wittrock (Ed.), Handbook of research on teaching. A project of the American Education Research Association (3rd ed., pp. 255-296). New York: Macmillan.

Commonwealth of Massachusetts Board of Regents of Higher Education/Department of Education. (1987). Making teaching a major profession. Recommendations of the Joint Task Force on Teacher Preparation.

Cremin, L. A. (1961). The transformation of the school. Progressivism in American education, 1876-1957. New York: Alfred A. Knopf.

Dewey, J. (1904). "The relation of theory to practice in education." In R. D. Archambault (Ed.) (1974), John Dewey on education: selected writings (pp. 313-338). Chicago: University of Chicago Press.

Dinham, S. M., & Stritter, F. T. (1985). Research on professional education. In M. C. Wittrock (Ed.), Handbook of research on teaching. A project of the American Education Research Association (3rd ed., pp. 952-970). New York: Macmillan.

Feiman-Nemser, S. (Ed.). (1987). Teacher education and learning to teach. Proceedings of the First Annual NCRTE Retreat. East Lansing: Michigan State University, National Center for Research on Teacher Education.

Fox, R. C. (1957). Training for uncertainty. In R. K. Merton (Ed.), G. G. Reader, MD (Ed.) & P. L. Kendall (Ed.), The student-physician. Introductory studies in the sociology of medical education (207-241). Cambridge, MA: Harvard University Press.

Gardner, W. Knowledge Base for Beginning Teachers Project. Informal communication, unpublished materials.

Hampel, R. L. (1987, February). Doctoring schools. Basic Education, 2, pp. 9-12.

The Harvard Education Letter, 2(4). (1986, July). Harvard Graduate School of Education: Harvard University Press.

Hawk, P. P., & Robards, S. (1987). "Statewide teacher induction programs." In D. M. Brooks (Ed.)., ATE, Teacher induction. A new beginning. Reston, VA: Association of Teacher Educators.

Holmes Group. (1986). Tomorrow's teachers: a report of the Holmes Group. East Lansing, MI: Holmes Group, Inc.

Janowitz, M. (1969). Institution building in urban education. Chicago: University of Chicago Press.

Kennedy, M. M. (1987). In exact sciences: professional education and the development of expertise (Issue Paper 87-2). Michigan: National Center for Research on Teacher Education.

Lanier, J. E., & Little, J. W. (1985). Research on teacher education. In M. C. Wittrock (Ed.), Handbook of research on teaching. A project of the American Education Research Association (3rd ed., pp. 527-569). New York: Macmillan.

Little, J. W. (1982, Fall). Norms of collegiality and experimentation: workplace conditions of school success. American Educational Research Journal, 19, 325-340.

Ludmerer, K. (1985). Learning to heal. New York: Basic Books.

McDaniel, E. D., & McInerney, W. D. (date unknown). Collaborations: the promise and the prospect. Unpublished manuscript, Purdue University, Department of Education, West Lafayette, IN.

McDonald, F. J. (1980). Study of induction programs for beginning teachers. The problems of beginning teachers: a crisis in training (Vol. I). Berkeley, CA: Educational Testing Service.

Palaich, R., Flakus-Mosqueda, P., & Wilkins, J. (1985). Survey of state teacher policies (Draft). Denver, CO: Education Commission of the States.

Rich, J. M., Ph.D. (1984). Professional ethics in education. Springfield, IL: Charles C. Thomas.

Schaefer, R. J. (1967). The school as a center of inquiry. New York: Harper & Row.

Schlechty, P. C. (1985, January-February). Induction. A framework for evaluating induction into teaching. Journal of Teacher Education, pp. 37-41.

Schlechty, P. C., Ingwerson, D. W., & Brooks, T. I. (in press), Inventing professional development schools. Educational Leadership.

Schon, D. A. (1983). The Reflective Practitioner. San Francisco, CA: Jossey-Bass.

Schon, D. A. (1987). Educating the reflective practitioner. San Francisco, CA: Jossey-Bass.

Shulman, L. S. (1986, February). Those who understand: knowledge growth in teaching. Educational Researcher, pp. 4-14.

Sirotnik, K. A. (1987, August). The school as the center of change. Paper prepared for the Southwestern Bell Invitational Conference "Restructuring Schooling for Quality Education: A New Reform Agenda," The Brackenridge Forum for the Enhancement of Teaching. San Antonio, TX: Trinity University.

Soder, R. (1986). Professionalizing the profession. Notes on the future of teaching (Occasional Paper Series No. 4). Seattle: University of Washington, Institute for the Study of Educational Policy, College of Education.

Stones, E. (1987). "Student (practice) teaching." In Dunkin, M. J. (Ed.), The international encyclopedia of teaching and teacher education. Oxford: Pergamon Press.

Wise, A. E., Darling-Hammond, L., Berry, B., Berliner, D., Haller, E., Praskac, A., & Schlechty, P. (1987). Effective teacher selection. From recruitment to retention (R-3462-NIE/CSTP). Santa Monica, CA: Rand Corporation.

Zeichner, K. M. & Liston, D. P. (1987, February). Teaching student teachers to reflect. Harvard Educational Review. 57, (1), pp. 23-48.

ACCOUNTABILITY FOR PROFESSIONAL PRACTICE *

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The issue of educational accountability is probably the most pressing and most problemmatic of any facing the public schools today. Gone are the days when a local town council hired the village schoolmaster and fired him at will for any cause. Gone, too, are the days when schoolteachers were so respected in their office that anything within the schoolroom walls was accepted as the rightful and unquestioned prerogative of school officials. A more highly educated populace has greater expectations of schools, and a more knowledge-oriented economy raises both the costs and benefits of school success or failure. Today, schools are being held to account by politicians, the general public, and parents for results they should be expected to produce and, often, for results over which they have little or no control.

In the current debates about accountability, cacaphony rules. There is little agreement, and perhaps even less clear thinking, about what accountability means, to whom it is owed, and how it can be operationalized. Many policymakers seem to equate accountability with something like the monitoring of student test scores, averaged for classrooms, schools, or school districts. Some believe that accountability can be enacted by statutes prescribing management procedures, tests, or curricula. Unfortunately, these approaches to accountability leave the student, the parent, the teacher, and the educational process entirely out of the equation. The production of a test score or a management scheme does not touch the issue of whether a student's educational interests are being well-served.

We need to begin to articulate what we mean by accountability, and in particular, what we mean by professional accountability. I will hypothesize here that a meaningful system of accountability for public

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education should do three things: it should (1) set educationally meaningful and defensible standards for what parents and members of the general public can rightfully expect of a school system, school, or teacher; (2) establish reasonable and feasible means by which these standards can be implemented and upheld; and (3) provide avenues for redress or corrections in practice when these standards are not met, so that ultimately students are well-served.

Given this framework, I will explore below how current systems of accountability are structured and how they would need to be changed to provide honest and useful vehicles for accountability in the context of schools intended to promote professional practice in teaching.

Models of Accountability

Social transactions in our society are managed in a variety of ways, ultimately subject to democratic control. Through legislative bodies, the populace can decide whether an activity should be a subject of governmental regulation and where that regulation should begin and end. When legislative government involvement has been eschewed or limited, control of an activity may revert, in whole or in part, to professional bodies, courts, or private individuals in their roles as clients, consumers, or citizens.

In any of these instances, accountability mechanisms are chosen to safeguard the public interest. These include at least the following:

- political accountability - elected officials must stand for reelection at regular intervals so that citizens can judge the representativeness of their views and the responsiveness of their decisions;

- legal accountability - courts must entertain complaints about violations of laws enacted by representatives of the public and of citizens' constitutionally-granted rights which may be threatened either by private action or by legislative action;

- bureaucratic accountability - agencies of government promulgate rules and regulations intended to assure citizens that public functions will be carried out in pursuit of public goals voiced through democratic or legal processes;

- professional accountability - governments may create professional bodies and structures to ensure competence and appropriate practice in occupations that serve the public and may delegate certain decisions about occupational membership, standards, and practices to these bodies;

- market accountability - governments may choose to allow clients or consumers to choose what services best meet their needs; to preserve the utility of this form of accountability, monopolies are prevented, freedom of choice is protected, and truthful information is required of service providers.

All of these accountability mechanisms have their strengths and weaknesses, and each is more or less appropriate to certain types of activities. Political mechanisms can support the public establishment of general policy directions in areas subject to direct government control. Legal mechanisms are most useful when rights or proscriptions are clearly definable and when establishing the facts is all that is needed to trigger a remedy. Bureaucratic mechanisms are most appropriate when a standard set of practices or procedures can be easily linked to behavioral rules that will produce the desired outcomes. Market mechanisms are helpful

when consumer preferences vary widely, when the state does not have a direct interest in controlling choice, and when government control would be counterproductive to innovation. Professional mechanisms are most important when safeguards for consumer choice are necessary to serve the public interest, but the technology of the work is uniquely determined by individual client needs and a complex and changing base of knowledge.

There are, of course, incentives in any of these systems for individuals to shirk their missions or for functional inadequacies to impair performance. (Public servants may use their position for private gain; courts may become overloaded; bureaucrats may fail to follow regulations; professionals may overlook incompetence; markets may break down due to regulatory or economic failures.) These problems can, presumably, be addressed by efforts to make the systems work more perfectly, often by overlaying another accountability mechanism against the first as a check and balance, e.g. enacting an ethics in government law which adds legal accountability vehicles to the electoral process for governing the actions of public officials.

However, even when they function perfectly, any given mode of accountability has intrinsic limits which must be weighed in the choice of which to use under varying circumstances. Electoral accountability does not allow citizens to judge each specific action of officials; nor does it necessarily secure the constitutional rights or preferences of citizens whose views and interests are in the minority. Legal accountability cannot be used in all cases: the reach of courts is limited to that which can be legislated; not all citizens have access to courts, and they are buffered from public opinion. Bureaucratic accountability does not guarantee results, it concerns itself with procedures; it is effective only when procedures are known to produce the desired outcomes, and when compliance is easily measured and secured. Professional accountability does not take public preferences into account; it responds to an authority

outside the direct reach of citizens and may satisfy its purposes while ignoring competing public goals. Market accountability does not ensure citizens' access to services and relies on the spontaneous emergence of a variety of services to allow choice to operate as a safety valve for poor service provision.

Because of these intrinsic limits, no single form of accountability operates alone in any major area of public life. Hybrid forms are developed to provide checks and balances and to more carefully target vehicles for safeguarding the public interest toward the particular matters they can best address. The choices of accountability tools -- and the balance among different forms of accountability -- are constantly shifting as problems emerge, as social goals change, and as new circumstances arise.

ACCOUNTABILITY IN EDUCATION

In education, it is easy to see that legal and bureaucratic forms of accountability have expanded their reach over the past 20 years, while electoral accountability has waxed and waned (with local and state school boards operating with reduced authority in some instances, and the purviews of elected and appointed officicals shifting in many states). Market accountability is more often discussed as a possibly useful vehicle, but still rarely used, except in a few districts that offer magnet schools or other schools of choice. Professional accountability is gaining in prominence as an idea for strengthening teaching quality, but it is yet poorly defined and partially at odds with other forms of accountability currently in use.

Bureaucratic Accountability

Bureaucratic organization and management of schools has increased since the early part of this century, when "scientific management"

principles were first introduced into urban schools in an effort to standardize and rationalize the process of schooling. The view underlying this approach to managing schools is as follows: Schools are agents of government that can be administered by hierarchical decisionmaking and controls.

Policies are made at the top of the system and handed down to administrators who translate them into rules and procedures. Teachers follow the rules and procedures (class schedules, curricula, textbooks, rules for promotion and assignment of students, etc.), and students are processed according to them.

This approach is intended to foster equal and uniform treatment of clients, standardization of products or services, and to prevent arbitrary or capricious decisionmaking. It works reasonably well when goals are agreed-upon and clearly definable, when procedures for meeting the goals can be specified, when the procedures are straightforward and feasible to implement, and when following these procedures is known to produce the desired outcomes in all cases. Bureaucratic accountability ensures that rules will be promulgated and compliance with these rules will be monitored. The promise that bureaucratic accountability mechanisms make is that violators of the rules will be apprehended, and consequences will be administered for noncompliance.

When bureaucratic forms are applied to the management of teaching, they rely on a number of assumptions:

- that students are sufficiently standardized that they will respond in identical and predictable ways to the "treatments" devised by policymakers and their principal agents;

- that sufficient knowledge of which treatments should be prescribed is both available and generalizable to all educational circumstances;

- that this knowledge can be translated into standardized rules for practice; these can be operationalized through regulations and reporting and inspection systems; and

- that administrators and teachers can and will faithfully implement the prescriptions for practice thus devised and transmitted to schools.

The circular bottom-line assumption is that this process, if efficiently administered, will produce the outcomes that the system desires. If the outcomes are not satisfactory, the final assumption is that the prescriptions are not yet sufficiently detailed or the process of implementation is not sufficiently exact. Thus, the solutions to educational problems always lie in more precise specification of educational or management processes.

In the bureaucratic model, teachers are viewed as functionaries rather than as well-trained and highly-skilled professionals. Little investment is made in teacher preparation, induction, or professional development. Little credence is given to licensing or knowledge acquisition. Little time is afforded for joint planning or collegial consultation about problems of practice. Because practices are prescribed outside the school setting, there is no need and little use for professional knowledge and judgment. Thus, novice teachers assume the same responsibilities as 30-year veterans. Separated into egg-crate classrooms and isolated by packed teaching schedules, teachers rarely work or talk together about teaching practices. A rationale for these activities is absent from the bureaucratic perspective on teaching work.

In the bureaucratic conception of teaching, teachers do not need to be highly knowledgeable about learning theory and pedagogy, cognitive science and child development, curriculum and assessment; they do not need

to be highly-skilled, because they do not, presumably, make the major decisions about these matters. Curriculum planning is done by administrators and specialists; teachers are to implement a curriculum planned for them. Inspection of teachers' work is conducted by hierarchical superiors, whose job it is to make sure that the teacher is implementing the curriculum and procedures of the district. Teachers do not plan or evaluate their own work; they merely perform it.

Accountability is achieved by inspections and reporting systems intended to ensure that the rules and procedures are being followed. Teachers are held accountable for implementing curricular and testing policies, grading policies, assignment and promotion rules, and myriad other educational prescriptions, whether or not these "treatments" are appropriate in particular instances for particular students. As a consequence, teachers cannot be held accountable for meeting the needs of their students; they can only be held accountable for following standard operating procedures. The standard for accountability is compliance rather than effectiveness.

The problem with the bureaucratic solution to the accountability dilemma in education is that effective teaching is not routine, students are not passive, and questions of practice are not simple, predictable, or standardized. By its very nature, bureaucratic management is incapable of providing appropriate education for students who do not fit the mold upon which all of the prescriptions for practice are based.

Public vs. Client Accountability

At present, I think it is fair to say that the use of legal and bureaucratic accountability mechanisms in education far outweighs the use of other forms, and that these mechanisms have overextended their reach for actually promoting positive practices and responsiveness to public and

client needs. This statement should not be glossed over too lightly, though, for public and client needs are not identical, and positive practices are defined in the eye of the beholder. Indeed, there is a special tension in public education between the goals held by governments for public schools and the goals held by the clients of schools, for which different forms of accountability are needed. Because the needs, interests, and preferences of individual students and parents do not always converge with the needs, interests, and preferences of state or local governments, the question of accountability in education must always be prefaced by the questions "to whom?" and "for what?"

Public schools have been created primarily to meet the state's need for an educated citizenry. Indeed, public education is not so much a right accorded to students as an obligation to which they are compelled by law. State goals include (1) socialization to a common culture (education to meet social needs); (2) inculcation of basic democratic values and preparation of students to responsibly exercise their democratic rights and responsibilities (education to meet political needs); and (3) preparation of students for further education, training and occupational life (education to meet economic needs). To meet these goals, the state further defines what type of socialization is desired, what manner of democratic preparation is to be given, and what forms of preparation -- forms useful to the state's economic goals -- are to be offered (Wise and Darling-Hammond, 1984).

Furthermore, the state has an interest in providing educational services both equitably (sometimes, this state interest has had to be enforced by courts when it is ignored by legislators) and efficiently, so that taxpayers' burdens are not excessive or their tax monies wasted. Since equity and efficiency are difficult concepts to operationalize, they cause special accountability problems for bureaucrats and professionals to resolve. They also frequently stand in conflict with the needs and

interests of individual students, as for example when "same" treatment does not produce appropriate treatment, or when "efficient" education does not produce quality education.

Individual consumers (parents and students) often hold different social, economic, and political goals than does the state government, and they very often disagree about how to pursue even the commonly held goals. Furthermore, child-oriented definitions of student "needs" rarely match state definitions, since the former are unique to the individual child, and the latter are promulgated for all children in a state, or for specified groups of children.

These definitions continually confront a tension that Thomas Green refers to as the dialectic between the "best" principle and the "equal" principle (Green, 1980). The "best" principle is the proposition that each student is entitled to receive the education that is best for him or her; the "equal" principle is the proposition that each is entitled to receive an education at least as good as (equal to) that provided for others. In translation through legal or bureaucratic vehicles, "equal to" means "the same as", since these vehicles must operate by uniform standards. Efforts to individualize instruction through these vehicles invariably must create groups of children, all of whom are then to be treated alike (hence, the tendency to create identifiable subsets of children, by age, grade level, measured ability, curriculum track, and so on). This may solve the state's problem of specifying inputs and desired outcomes, but it does not solve the student's or teacher's problem that children will still, come what may, fit untidily into the containers designed for them.

Thus, accountability for accomplishing state goals is a very different concept from accountability for accomplishing clients' goals. Indeed, accountability for meeting the needs of individual students is

often in conflict — or at least in tension -- with accountability for securing the public's preferences for education. Teachers and public school officials are the arbiters of these tensions. They strive to achieve a balance between meeting the state's goals and the needs of individual students. This requires a great deal of skill, sensitivity, and judgment, since the dilemmas posed by these two sets of goals are complex, idiosyncratic, and ever-changing.

Increasingly, though, attempts to provide public accountability have sought to standardize school and classroom procedures in the hopes of finding "one best system" by which all students may be educated. Codified by law, and specified more completely by regulation, these attempts have both "teacher-proofed" and "student-proofed" schooling, leaving little room for innovation or improvement of education. Indeed, this approach is criticized in recent reports as having created a situation in which "everyone has the brakes but no one has the motors" to make schools run well (Carnegie Forum, 1986).

Ironically, prescriptive policies created in the name of public accountability have begun to reduce schools' responsiveness to the needs of students and the desires of parents. In the cause of uniform treatment and in the absence of schooling alternatives, large numbers of students "fall through the cracks" when rules, routines, and standardized procedures prevent teachers from meeting their individual needs. Those who can afford to do so leave for private schools. Those who cannot are frequently alienated and ill-served.

The theory underlying the press for teacher professionalism is that strengthening the structures and vehicles for creating and transmitting professional knowledge will prove a more effective means for meeting students' needs and improving the overall quality of education than trying

to prescribe educational practices from afar. This theory is based on a conception of teaching as complex, knowledge-based work requiring judgment in nonroutine situations and on a conception of learning as an interactive and individually-determined process. These conceptions limit the applicability of legal and bureaucratic remedies for ensuring learning, by asserting the differential nature of effective interactions between teachers and learners which is beyond the capacity of laws and regulations to predict or prescribe.

Professional Accountability

Professionalism depends on the affirmation of three principles in the conduct and governance of an occupation:

1. Knowledge is the basis for permission to practice and for decisions that are made with respect to the unique needs of clients;

2. The practitioner pledges his first concern to the welfare of the client;

3. The profession assumes collective responsibility for the definition, transmittal, and enforcement of professional standards of practice and ethics.

Professionals are obligated to do whatever is best for the client, not what is easiest, most expedient, or even what the client him/herself might want. They are also obligated to base a decision about what is best for the client on available knowledge -- not just that knowledge acquired from personal experience, but also that clinical and research knowledge acquired by the occupation as a whole and represented in professional journals, certification standards, and specialty training. Finally,

professionals are required to take into account the unique needs of individual clients in fashioning their judgments about what strategies or treatments are appropriate.

These are fine goals, but how are they operationalized to result in something that might be called professional accountability? In policy terms, these requirements suggest greater regulation of teachers -- ensuring their competence through more rigorous preparation, certification, selection, and evaluation -- in exchange for the deregulation of teaching -- fewer rules prescribing what is to be taught, when, and how. This is, in essence, the bargain that all professions make with society: for occupations that require discretion and judgment in meeting the unique needs of clients, the profession guarantees the competence of members in exchange for the privilege of professional control over work structure and standards of practice.

The theory behind this equation is that professional control improves both the quality of individual services and the level of knowledge in the profession as a whole. This occurs because decisionmaking by well-trained professionals allows individual clients' needs to be met more precisely, and it promotes continual refinement and improvement in overall practice as effectiveness, rather than compliance, becomes the standard for judging competence.

It is important to note, too, that professional authority does not mean legitimizing the idiosyncratic or whimsical preferences of individual classroom teachers. Indeed, in other public service occupations, autonomy is the problem that professionalism is meant to address. It is precisely because practitioners operate autonomously that safeguards to protect the public interest are necessary. In occupations that have become professionalized, these safeguards have taken the form of screens to

membership in the profession and ongoing peer review of practice. Collective autonomy from external regulation is achieved by the assumption of collective responsibility. Responsible self-governance requires, in turn, structures and vehicles by which the profession can define and transmit its knowledge base, control membership in the occupation, evaluate and refine its practices, and enforce norms of ethical practice.

In theory, then, teacher professionalism promises a more potent form of accountability for meeting students' needs than that which courts and bureaucracies can concoct. It promises competence, an expanding knowledge base, concern for client welfare, and vehicles for enforcing these claims. In many respects, such accountability also serves the needs of the state by promoting better practice; but, because professional accountability is explicitly client-oriented it will not fully represent the preferences of the general public. Hence, in working through a concept of professional accountability, we must keep in mind its limits for achieving public accountability as well as its promise.

THE NATURE OF ACCOUNTABILITY IN PROFESSIONAL PRACTICE SCHOOLS

Professional practice schools have three missions with respect to accountability. First, they should model a professional form of accountability as it might ultimately be seen in all schools. Second, as induction centers, they implement a key accountability function for the profession as a whole. Third, as knowledge producing institutions, they support and help to build the foundation upon which professional accountability ultimately rests. These missions, as suggested by our earlier-stated criteria for accountability mechanisms, require that professional practice schools devote considerable attention to defining educationally meaningful standards of practice, creating reasonable means for upholding these standards, and establishing vehicles for redress or corrections of problems that arise.

The goals of professional accountability are to protect the public by ensuring that (1) all individuals permitted to practice in certain capacities are adequately prepared to do so responsibly; (2) where knowledge about practice exists, it will be used, and where certainty does not exist, practitioners will individually and collectively continually seek to discover the most responsible course of action; and (3) practitioners will pledge their first and primary commitment to the welfare of the client.

Preparation for Responsible Practice

The first of the goals listed above -- that all individuals permitted to practice are adequately prepared -- is crucial to attaining the conditions for and benefits of professionalism. So long as anyone who is not fully prepared is admitted to an occupation where autonomous practice can jeopardize the safety of clients, the public's trust is violated. So long as no floor is enforced on the level of knowledge needed to teach, a professional culture in schools cannot long be maintained, for some practitioners will be granted control and autonomy who are not prepared to exercise it responsibly.

Professional practice schools serve a crucial function in the preparation of professional teachers. They are charged with completing the initial education of prospective teachers, by ensuring that they have the tools to apply theory in practice and by socializing them to professional norms and ethics. This mission requires (1) a conception of the understanding and capabilities to be acquired by novice teachers before they are allowed to practice autonomously; (2) means by which these understandings, including ethical and normative commitments, can be acquired with a high probability of success; and (3) safeguards to ensure that those sent forth from such schools are adequately prepared. In addition, as models of responsible professionalism, these schools must offer assurances to parents who send their children to such schools that they will not be harmed by the (literal) practice of novices.

A Conception of Teaching. In highly-developed professions, the knowledge expected to be acquired in an apprenticeship or internship is decided by the profession through accrediting bodies that sanction such programs and through certification examinations that are taken after the induction experience is completed. Until such time as these professional structures are available in education, though, professional practice schools will be at the forefront of defining what it is that a teacher needs to know to safely practice without intensive supervision.

In pragmatic terms, this is where the first knotty challenge facing such schools will arise. Although professionalism starts from the proposition that knowledge must inform practice, teacher education is often denounced and frequently avoided on the grounds that either it does not convey the knowledge necessary for real teaching (alternative certification plans argue this can be acquired on the job), or that there is no knowledge base for teaching anyway. Even trained and licensed teachers will come to their first teaching experiences with variable levels and types of knowledge, given the diversity of preparation experiences and the disparate standards for licensure both within and across states.

In wrestling with a conception of teaching knowledge, then, professional practice schools will form an implicit conception of their "curriculum" that must be based on assumptions -- sure to be violated -- about what novice teachers might already be expected to know. Even before they have begun, such schools will have to decide whether they will assume the mission of preparing, sometimes from "scratch", the unprepared, or whether they will develop some type of admissions standard that approximates a level of knowledge upon which they feel they can successfully build. A possible middle ground is that the school will diagnose novices' knowledge at entry, requiring supplemental coursework in specific areas where a minimal understanding of rudiments of content or pedagogy has not yet been acquired.

This is more than an academic question, particularly for large city school systems which have many new entrants admitted on emergency or alternative certificates without prior teacher education, and others who are hired to teach in fields for which they have not had complete subject matter preparation. The choices made in this regard will determine in many respects what methods of preparation and levels of responsibility will be suitable for novice teachers.

There are many statements possible about what kinds of understandings and capabilities professional practice schools should seek to exemplify and impart. Shulman (1987), for example, classifies the elements of teaching knowledge as follows:

- content knowledge;
- general pedagogical knowledge, with special reference to those broad principles and strategies of classroom management and organization that appear to transcend subject matter;
- curriculum knowledge, with particular grasp of the materials and programs that serve as "tools of the trade" for teachers;
- pedagogical content knowledge, that special amalgam of content and pedagogy that is uniquely the province of teachers, their own special form of professional understanding;
- knowledge of learners and their characteristics;
- knowledge of educational contexts, ranging from the workings of the group or classroom, the governance and financing of school districts, to the character of communities and cultures; and

- knowledge of educational ends, purposes, values, and their philosophical and historical grounds.

To this list, I would add a grounding in professional ethics, so that teachers can responsibly resolve dilemmas of teaching practice. The goal, as Shulman puts it "is not to indoctrinate or train teachers to behave in prescribed ways, but to educate teachers to reason soundly about their teaching as well as to perform skillfully" (p. 13).

Whatever the precise definition of knowledge that is arrived at, the professional practice school must have in mind what its expectations are for the understandings that undergird professional practice. It is on this basis that the school selects its staff, develops its program for induction, and assesses whether novices have been adequately prepared to practice autonomously.

Structuring Professional Practice. The basic task here is constructing an organization that will seek, transmit, and use knowledge as a basis for teaching decisions, that will support inquiry and consultation, and maintain a primary concern for student welfare. Because knowledge is constantly expanding, problems of practice are complex, and ethical dilemmas result from conflict between legitimate goals, the establishment of professional norms cannot be satisfied by prescriptions for practice or unchanging rules of conduct. Instead, the transmission of these norms must be accomplished by socialization to a professional standard which incorporates continual learning, reflection, and concern with the multiple effects of one's actions on others as fundamental aspects of the professional role.

For a professional practice school, the accountability dilemmas associated with structuring practice are at least twofold:

- How can the school guarantee that novices are given adequate preparation?

- How can the school encourage the use of appropriate practices for all children it serves?

The induction mission of the school ought to warrant that those working with new teachers are themselves exemplars of good teaching; that the experiences of the new teachers will be structured to explicitly address the understandings they are expected to acquire; and that some means for assessing the progress of new teachers are used.

Faculty who are engaged in the induction of new teachers may or may not be all of the faculty employed in a professional practice school. If the school is to be an exemplar of good practice, certainly all of the staff must be committed to the tenets of professionalism and the goals of the school. Those who are specifically charged with the preparation of new teachers must themselves meet the standards of teaching knowledge and disposition toward which new teachers strive. This suggests that these faculty will be carefully selected for their capacities to teach adults as well as children. Selection should be conducted by other teaching professionals according to the standards earlier defined. If the school is to model professional accountability, selection by peers according to professional standards is a fundamental feature of the professionalization process.

What distinguishes the form of professional preparation envisioned here from the usual approaches to teacher induction is that, because a standard of practice is envisioned and articulated, haphazard or idiosyncratic training and experiences will be insufficient to guarantee that the standard has been met. Consequently, pairing of a beginning teacher with a mentor in a single class setting is not adequate to the

task. The school must structure the experiences of beginning teachers so that they encounter a range of teaching situations and acquire a set of teaching and decisionmaking abilities. This suggests that the school has an explicit curriculum for beginning teachers composed of (1) formal instructional experiences, such as seminars, clinical conferences, readings, and observations of other teachers; and (2) clinical experiences in which the beginning teacher, under supervision, systematically encounters and examines the major domains of teaching knowledge.

In order to safeguard the welfare of students and facilitate the learning of novice teachers, beginning teachers should not have sole responsibility for a standard teaching load; they need to be given an appropriate and graduated degree of responsibility for teaching students and the opportunity to review major teaching decisions with expert faculty. Indeed, important decisions about students should not be made in isolation. The requirement for consultation is both a protection for students and a means of transmitting knowledge; it is also a means for socializing new teachers to norms of inquiry and collaboration.

In addition, beginning teachers should acquire experience with a variety of students and types of classes. To develop generalizable teaching skills and the ability to exercise judgment in diverse teaching situation, new teachers should learn to work with students at different cognitive stages and performance levels, from differing family backgrounds, and in different subject areas within the disciplinary or grade level domain.

Finally, accountability for performing the training mission must be secured by assessing new teachers' progress toward the acquisition of professional knowledge and norms of conduct. Such assessment should be the basis for decisions about according additional responsibility for students to developing teachers and about "certifying" that novices are

sufficiently prepared at the close of their experience to practice autonomously. At minimum, this process should include frequent feedback to new teachers, establishment of opportunities to acquire those skills not yet adequately mastered, and consultation at regular intervals.

The conditions for responsible practice in a professional practice school obviously must include structures that promote inquiry and consultation among the faculty as a whole, not just those immediately engaged in supervising novices. Teacher isolation promotes idiosyncratic practice and works against the development and transmission of shared knowledge. Changing the egg-crate classroom structure and the groupings of students and teachers that maintain isolation will require major changes in teaching arrangements to promote team efforts and legitimize shared time. Many possibilities for reorganizing instruction, such as those pursued in the Coalition of Essential Schools and other similar initiatives, can be considered. With respect to the accountability question, several features of school structure are particularly important:

1. the extent to which the organization of instruction fosters responsibility for individual students, i.e. client-oriented accountability;

2. the extent to which the school structure fosters the use of professional knowledge beyond that represented in the experiences of individual teachers;

3. the extent to which the school structure supports continual self-evaluation and review of practice.

Client-oriented accountability requires that teachers primarily teach <u>students</u> rather than teaching <u>courses</u>, that they attend more to learning than to covering a curriculum. If teachers are to be responsible

for students and for learning, they must have sufficient opportunities to come to know students' minds, learning styles, and psychological dispositions, and they must be able to focus on student needs and progress as the benchmark for their activities. This seems obvious, but it is rendered improbable, if not impossible, as schools are now structured. The current structure assures that specific courses and curricula will be offered and students will pass through them, usually encountering different teachers from grade to grade and course to course, succeeding or failing as they may. This system does not offer accountability for student learning, only for the processing of students.

Client accountability entails at least two implications for the organization of schooling: that teachers will stay with students for longer periods of time (hours in the day and even years in the course of a school career) so that they may come to know what students' needs are, and that school problem-solving will be organized around the individual and collective needs of students rather than around program definitions, grades, tracks, and labels.

Use of professional knowledge poses other requirements: that decisionmaking be conducted on the basis of available profession-wide knowledge, not on the basis of individual proclivity or opinion, even collective opinion. When most schools do not even stock professional journals in their libraries, the challenge implied by this requirement is profound. In addition to shared time and expectations of consultation and collective decisionmaking, vehicles must be found for teachers in professional practice schools to have access to the knowledge-bases relevant to their work and to particular, immediate problems of teaching practice. Linkages to universities and access to professional development opportunities go part way toward solving this problem, but more is needed. Professional practice schools may need to create their own research teams to examine and augment available knowledge if practice is to be thus grounded.

Research in the professional practice school setting serves an important function for the development of knowledge, but it poses dangers as well. Experimentation can harm students, if it is conducted without care and appropriate safeguards. Too much innovation for its own sake can result in faddism and lack of a coherent philosophy over time and across classrooms in a school. Thus, research in the professional practice school must also be subject to careful faculty deliberation as to its necessity, desirability, and likely effects on children; to monitoring while in progress; and to the informed consent of parents.

Finally, ongoing review of practice is central to the operation of professional organizations. This evaluative function serves the joint purposes of monitoring organizational activities and establishing a continuous dialogue about problems of practice among the practitioners themselves. The very distant analog in school systems is program evaluation, an activity generally conducted by central office researchers who report findings to government sponsors and school board members. Teachers are neither the major producers nor consumers of such information. Hence, neither they nor their students are the major beneficiaries of such evaluation results.

Teachers must wrestle with and take responsibility for resolving immediate, concrete problems of teaching practice if teaching lore is ever to be transformed into meaningful professional standards. One could envision many methods for achieving this. Standing committees such as those used in hospitals could meet regularly to review practices in various subject areas or grade levels, or to examine other functional areas: academic progress; grading policies; student and teacher assignments to particular courses, programs, or teams; development of student responsibility; organization of instruction; and so on. Or more flexible approaches might be tried. Ad hoc research committees might be formed to examine particular problems, both as they manifest in the school

and as they have been addressed by research. Faculty meetings could be used to investigate curricular strategies and other matters within and across departments or grade levels. What is critical is that teachers have both time to pursue these evaluations as part of their role (rather than as "released" or extracurricular time) and authority to make changes based on their collective discoveries.

One other point is worth making here: these evaluative and decisionmaking functions should be engaged in by all of the teachers within the school, including the novices in training. Some proposals for "teacher leadership" envision a small cadre of lead teachers or master teachers who partake of administrative decisionmaking authority, while everyone else goes on about their work. The trickle-down theory of expertise does not presume a professional standard for all teachers; professional accountability does. Teachers will learn to weigh and balance considerations, to inquire, consult, and make collaborative decisions, to use and develop teaching knowledge to the extent that they are expected to do so. Socialization into these norms of inquiry and collaboration must be part of the preparation of beginning teachers and part of the daily life of all teachers if they are to begin to permeate the profession.

Safeguards for Professional Practice. Even with all of the professional accountability mechanisms described above, there are dangers that the needs of some students will not be diagnosed or fully met, that the concerns or preferences of parents will be inadequately attended to, that the continual juggling of multiple and competing goals will sometimes lose sight of some while seeking to secure others. Members of a profession, while setting their own standards, cannot seal themselves off too tightly from public scrutiny or from their clientele. When they do, they endanger their rights to self-governance, as other professions have discovered in recent years.

A number of means for providing safeguards and voice for clients and the public will have to be considered and shaped to fit the requirements for a professional practice school:

- hierarchical regulation, which expresses the contract made between a state or district and its populace;
- personnel evaluation, which establishes avenues for ensuring faculty competence;
- participation and review procedures for parents, which create clear and meaningful avenues for expression of parent views and concerns; and
- reporting vehicles, which transmit the accomplishments of students in the school to parents and the general public.

Standard practices in each of these areas are inadequate to provide genuine accountability. In many cases, standard practice also undermines professional practice. New contracts must be forged with states, districts, teacher associations, parents, and the public. A full exploration of the content of these new contracts is beyond the scope of this paper. The nature of the terrain is sketched briefly below.

The problems associated with hierarchical regulation of teaching have been articulated earlier. In school bureaucracies, authority for decisions and responsibility for practice are widely separated, usually by many layers of hierarchy. Boards and central administrators make decisions while teachers, principals, and students are responsible for carrying them out. It is for this reason that accountability for results is hard to achieve. When the desired outcomes of hierarchically-imposed policies are not realized, policymakers blame the school people responsible for implementation; practitioners blame their inability to

devise or pursue better solutions on the constraints of policy. No one can be fully accountable for the results of practice when authority and responsibility are dispersed.

Yet policymakers have a responsibility to ensure fairness in the delivery of educational services; and district officials are liable for the actions of schools residing within their jurisdictions. Not all regulations can be dispensed with in the cause of professional practice. An heuristic is needed for sorting those regulations that must be observed from those that must be renegotiated or waived. As a first step, it is useful to divide responsibilities into those that must be centrally administered and those, that, by their nature, cannot be effectively administered in a hierarchical fashion.

Wise (1979) offers a useful distinction between equity and productivity concerns. The former generally must be resolved by higher units of governance, since they "arise out of the conflicting interests of majorities and minorities and of the powerful and powerless. Because local institutions are apparently the captives of majoritarian politics, they intentionally and unintentionally discriminate. Consequently, we must rely upon the policymaking system to solve problems of inequity in the operating educational system" (p. 206). On the other hand, productivity questions cannot be solved by regulation, since the appropriate use of teaching knowledge is highly individualized, while policies are necessarily uniform and standardized. Thus, policy decisions about methods of teaching and schooling processes cannot every meet the demands of varying school and student circumstances. These require renegotiation for the accommodation of professional practice.

Personnel evaluation, by this rubric, falls in the domain of professional determination. This could lead to its substantial improvement or to its avoidance and demise. This is a critical function

of a profession, as the first promise a profession makes is oversight of competence to practice. The shortcomings of traditional evaluation practices and the outlines of more productive professional practices are described in detail elsewhere (see e.g. Darling-Hammond, 1986). In brief, these entail increased peer involvement in design and implementation of evaluation, and separation of the processes for encouraging professional learning from those for making personnel decisions (by committee and with attention to objectivity and due process safeguards). All of this is more easily said than done, however, and the resolution of issues regarding collective bargaining relationships, appropriate roles for administrators and teachers, and political turf battles will require courage and leadership from teachers.

Parent voice is particularly important and problemmatic for a professional practice school. In the first place, the unique qualities of the school will be uncomfortable for some parents. In addition, professional practice must be guided, to the extent possible, by knowledge, even where that conflicts with client preferences. On the other hand, best practice is never absolute or fully-informed by research; it is a matter of judgment and frequently unique to the individual child, about whom the parent has substantial knowledge. The multiple goals of schooling will often stand in tension to one another. Parents must have a voice in determining the balance among goals as they are compelled by the state to entrust their children to schools. Thus, parent voice must be secured in a fashion that few schools have yet managed.

The first requirement, I believe, is that professional practice schools must, for their clientele as well as their faculties, be schools of choice. No child should be compelled by neighborhood residence or other criterion to attend the school, although attendance should be open for those in the community who desire it. This both safeguards the rights of parents and students to voice their preferences for a form of education

with which they feel comfortable and protects the school from the task of satisfying a clientele that might otherwise have widely differing and even opposing points of view. It also provides the school with information, legitimacy, and a form of external review. If schools of choice are chosen, they are legitimized; if they are not, self-examination is required.

Beyond choice, which is the easy part of the answer, parent voice can be fostered by (1) school structures for shared governance, (2) accessible review and appeals processes, and (3) parent involvement in decisionmaking about individual children. Structures for shared governance, such as school-community councils, can provide a vehicle for the shared interests of the parent community to find legitimized and regular expression in the school context. Perhaps the most proactive form of shared governance among parents, teachers, and administrators is seen in Salt Lake City, where decisionmaking turf that is the joint domain of parents and faculty (e.g. the school schedule, discipline policies, and curricular emphases) is delegated to councils for determination by consensus and parity vote (see Bernstein, in Wise et al., 1984).

Mechanisms for review and appeal of specific concerns and complaints by a neutral third party supplement the shared governance mechanism, by providing a clear avenue for the resolution of individual problems. These mechanisms also provide information and external review for the school as a whole. Finally, the expectation that parents will be included in discussions of important decisions concerning their children prevents the insulation of the professional decisionmaking process from exposure to the real-world circumstances and concerns of families and communities.

The issue that most ties knots in discussions of accountability is the question of how individual and school expectations and accomplishments can be transmitted in an educationally productive manner to parents,

students, and the public-at-large. Because school goals are numerous, diffuse, and difficult to quantify, simple statements of objectives and results can never completely capture what schools do or what their students accomplish. The counterproductive outcomes for instruction of mindlessly adopting simple performance measures, such as averages of student achievement test scores, have been well-documented (see e.g. Haney and Madaus, 1986; Darling-Hammond and Wise, 1985). Though less discussed, even student grading mechanisms can work against student success. The assumption behind grading schemes that students are to be ranked against each other and that their accomplishments can be captured in a single letter or number can trivialize the educational strivings of individual students and undermine their motivation and self-esteem, activating the Pygmalion principle rather than supporting learning.

Yet reporting vehicles serve an important accountability function by giving information to parents and policymakers and school practices and student progress. The press for such information is increasing and cannot be avoided. Professional practice schools must be at the forefront of efforts to devise educationally productive means for reporting what they and their students do. Untangling this knotty problem is well beyond the scope of this paper. However, we can point to a few promising directions.

Recent emphasis in a few school restructuring efforts on "high-fidelity" representations of student accomplishments -- demonstrations, exhibitions, and projects, for example -- seeks more valid and less artificial tools for educational assessment. Narrative reports of student progress accompanied by cumulative portfolios can better represent what a student has learned than a letter grade. Such forms also better represent what the teacher and school have sought to accomplish by depicting the form of instruction as well. Much can be learned from the assessment systems of other countries, which stress these kinds of representations of learning as a means for both reporting outcomes and supporting meaningful and useful education.

Ultimately, though, to satisfy the press for public accountability, entirely new means of reporting the aggregate accomplishments of students in a school will need to be developed. This puzzle is one that professional practice schools will undoubtedly encounter before they, or the profession, have developed an answer to it.

A FOOTNOTE

Professional accountability seeks to support practices that are client-oriented and knowledge-based. It starts from the premise that parents, when they are compelled to send their children to a public school, have a right to expect that they will be under the care of competent people who are committed to using the best knowledge available to meet the individual needs of that child. This is a different form of accountability than that promised by legal and bureaucratic mechanisms, which assure that when goals have been established, rules will be promulgated and enforced.

Professional accountability assumes that, since teaching work is too complex to be hierarchically prescribed and controlled, it must be structured so that practitioners can make responsible decisions, both individually and collectively. Accountability is provided by rigorous training and careful selection, serious and sustained internships for beginners, meaningful evaluation, opportunities for professional learning, and ongoing review of practice. By such means, professionals learn from each other, norms are established and transmitted, problems are exposed and tackled, parents' concerns are heard, and students' needs are better met.

In such a system, parents can expect that no teacher will be hired who has not had adequate training in how to teach, no teacher will be permitted to practice without supervision until he/she has mastered the

professional knowledge base and its application, no teacher will be granted tenure who has not fully demonstrated his/her competence, and no decision about students will be made without adequate knowledge of good practice in light of students needs. Establishing professional norms of operation, by the vehicles outlined above, creates as well a basis for parent input and standards and methods for redress of unsuitable practice that do not exist in a bureaucratic system of school administration.

This work is not easy, and will not be accomplished quickly. As Clark and Meloy (1987) have noted:

> We counsel patience in the developmenmt of and experimentation with new organizational forms. We have been patient and forgiving of our extant form. Remember that new forms will also be ideal forms. Do not press them immediately to their point of absurdity. Bureaucracy as an ideal form became tempered by adjectival distinctions -- bounded, contingent, situational. New forms need to be granted the same exceptions as they are proposed and tested. No one seriously imagines a utopian alternative to bureaucracy. But realistic alternatives can be formed that consistently trade off control for freedom, the organization for the individual. And they can be built upon the principle of the consent of the governed (p. 40).

This, in sum, is the challenge that faces professional practice schools.

REFERENCES

Carnegie Forum on Education and the Economy (1986). A nation prepared: Teachers for the 21st century. New York: Carnegie Corporation.

Clark, D.L. and Meloy, J.M. (October 1987). Recanting bureaucracy: A democratic structure for leadership in schools. Unpublished manuscript. Charlottesville, VA: University of Virginia.

Darling-Hammond, L. (March 1986). A proposal for evaluation in the teaching profession. Elementary School Journal, 86(4), 1-21.

Darling-Hammond, L. and Wise, A.E. (1985). Beyond standardization: State standards and school improvement. The Elementary School Journal 85(3), 315-336.

Green, T.F. (1980). Predicting the behavior of the educational system. Syracuse, NY: Syracuse University Press.

Haney, W. and Madaus, G. (1986). Effects of standardized testing and the future of the National Assessment of Educational Progress. (working paper for the NAEP Study Group) Chestnut Hill, MA: Center for the Study of Testing, Evaluation and Educational Policy, Boston College.

Shulman, L. (February 1987). Knowledge and teaching: Foundations of the new reform. Harvard Educational Review, 57(1).

Wise, A.E. (1979). Legislated learning. Berkeley, CA: University of California Press.

Wise, A.E. and Darling-Hammond, L. (1984). Education by voucher: Private choice and the public interest. Educational Theory, 34(1), 29-47.

Wise, A.E.; Darling-Hammond, L.; McLaughlin, M.W.; and Bernstein, H.T. (1984). Teacher evaluation: A study of effective practices. Santa Monica, CA: The RAND Corporation.

PROFESSIONAL PRACTICE SCHOOLS: HOW WOULD WE KNOW ONE IF WE SAW ONE? *

A GUIDE TO SELF-ASSESSMENT

Holly M. Houston

The characteristics of Professional Practice Schools that the AFT-Exxon Task Force has identified evolve out of a three-part statement of institutional purpose. Professional Practice Schools would (1) support student success, (2) provide a professional induction program for new teachers, and (3) support systematic inquiry directed toward the improvement of practice (Levine, p.1).

We have asserted that this mission can be realized under conditions associated with a "restructured" educational environment. This environment would differ from that found in traditional schools in several important ways. Where schools are typically characterized by "compulsion, management by intention, unexamined tradition, identification of failure, adult isolation, punishments, and class or age orientation," we envision restructured schools that are characterized by "choice, management by results, reflective practice, promotion of success, collegiality, rewards, and a whole-school orientation." The characteristics of our present school system that are outlined here are not the result of irresponsibility or malevolence on the part of teachers, administrators, or parents. Rather, they have evolved as our system for schooling youngsters has become larger and increasingly complex. We believe that

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* This paper was commissioned by the American Federation of Teachers under a grant from the Exxon Education Foundation. It is one of a series of papers designed to examine the potential of professional development schools. This paper addresses institutional standards.

schools can better serve the interests of society and of individual students if educators consider the significance of the lists below and then determine for themselves which characteristics and values their schools should be built around.

Where the present system encourages		The Task Force advocates
compulsion	. . .	choice
management by intention	. . .	management by results
unexamined tradition	. . .	reflective practice
adult isolation	. . .	collegiality
punishment	. . .	rewards
class or age orientation	. . .	whole-school orientation

More generally, we assume that the characteristics of the Professional Practice School that will distinguish it from traditional schools would derive from its commitment to disciplined inquiry about teaching and learning and from the dynamic between the education of youngsters and the education of professional educators. We also assume that learning and teaching are more symbiotic than linear in their relationship to one another and that environments that successfully prepare adults for careers in education and those that prepare young people for thoughtful, productive lives have much in common; indeed, the environment that is maximally fertile for one may prove equally fertile for the other. Schools should be laboratories for learning.

How Might One Assess a Professional Practice School?

Premise: The PPS should be evaluated in terms of its own aims and objectives as these are expressed in statements of institutional mission. Using the Task Force statement of vision as the starting point in this exercise, we know that the institution has a triple mission: student education, teacher education, and research.

The Standards and Indicators detailed on the following pages have implications for the provision of quality education programs to both adults and youngsters. These are to be used as a basis for assessing the Professional Practice School, with rankings to be made in all categories listed. The rating scale below contains five rankings—numbers 1 through 5. An explanation of the scale follows:

1	Exemplary:	An exemplary program or capacity; demonstrates vision, rigor and commitment
2	Adequate:	Satisfies expectations for a quality education program
3	Provisional:	Not up to standard; specific improvements are recommended
4	Below standard:	Unacceptable
5	Not applicable:	(explanation should be provided)

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The assessment team has several important responsibilities; chief among them is the accumulation of evidence. Under each standard there are several Indicators that can guide the assessment team as they seek data and information to be used as a basis for judging the adequacy of the Professional Practice School's program. The inclusion of additional indicators is encouraged.

Standard 1: Students are provided opportunities to demonstrate their knowledge and know-how in ways that are responsibly diverse, thus providing teachers, parents, policymakers, and students themselves with multiple and authentic indices of learning. 1 2 3 4 5

Indicators:

1.1 There are appropriate and multiple means for assessing individual student's knowledge and know-how.

1.2 The school's promotion and graduation requirements are consonant with the mission of the school and are honored.

1.3 The teaching and learning environment in classes, clubs, and on teams is adequately personalized to enhance student success.

1.4

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Standard 2: Teachers combine the necessary knowledge and know-how to contribute to student success. 1 2 3 4 5

Indicators:

2.1 Teachers are able to express their aims for student learning.

2.2 Teachers are able to write and speak clearly and to read and listen accurately.

2.3 Teachers are able to teach reading, writing, speaking, and listening.

2.4 Teachers possess an adequate degree of knowledge of the subjects that they teach.

2.5 Teachers demonstrate the ability to collaborate with other adults in planning and teaching.

2.6 A majority of teachers are certifiable by the National Board for Professional Teaching Standards.

2.7

Standard 3: Teachers understand the mission of the institution and their individual roles and responsibilities 1 2 3 4 5

Indicators:

3.1 Teachers are able to articulate the institutional mission in terms that denote internalization and ownership.

3.2 Individual teachers are able to articulate their own professional responsibilities as these pertain to student learning, professional collaboration, and the mission of the institution.

3.3 Job descriptions are appropriately specific and up-to-date.

3.4

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Standard 4: The educational program is shaped by a governing body at the school site whose policies and procedures are written, available to the public, and responsive to appeal processes. 1 2 3 4 5

Indicators:

4.1 The school's formal system for policy development and review is described in writing.

4.2. The governance structures reflect the school's mission.

4.3 There are provisions for checks and balances among the school's various interest groups and constituencies on matters pertaining to educational policy and procedure (educators, parents, students, community).[1]

4.4 There are appeal processes that are publicized and utilized.

4.5 There is adequate provision of time and compensation for goal setting and program design.

4.6 There are benchmarks of progress built into the planning process that necessitate data collection about professional development and training efforts, large-scale program evaluation, and the evaluation of teaching.

4.7

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[1] (Arthur E. Wise et al., especially pp. 119-166)

Standard 5: Appropriate assessment procedures for students, teachers (both novice and experienced), and administrative and support staff are established. 1 2 3 4 5

Indicators:

5.1 Assessment forms and procedures are devised by groups of professionals working in collaboration.

5.2 Assessment forms and procedures are reviewed and revised annually.

5.3 Aggregated results of assessments are used in devising professional development programs.

5.4

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Standard 6: Provisions are made for professional development activities that build from assessments and accord with the school's plans. 1 2 3 4 5

Indicators:

6.1 Results of student assessments are utilized in developing professional development programs for teachers.

6.2 Aggregate assessments of teaching are utilized in the creation of professional development programs for teachers.

6.3 There is evidence of collegial work and rigorous experimentation with teaching that is characterized by a concrete, precise, coherent and shared language.

6.4 Teachers are regularly observed and provided with critiques of their teaching. [2]

6.5 Teachers plan, design, research, evaluate, and prepare teaching materials together. [3]

6.6 Teachers teach each other the practice of teaching. [4]

6.7 There are identifiable and formal communication networks within the school. [5]

6.8 There is evidence of frequent and multidirectional information flow. [6]

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2 (Judith Warren Little, p. 331)
3 Ibid.
4 Ibid.
5 (Milbrey McLaughlin, pp. 166-67)
6 Ibid.

Standard 7: Resources provided to the Professional Practice School are adequate to support a high quality education program for students and teachers and are responsibly managed at the school site. 1 2 3 4 5

Indicators:

7.1 Adequate funds are allocated by the school system for salaries.

7.2 Adequate responses are available for the education of students, for the education of teachers, and for research.

7.3 The budget process and all fiscal allocations are managed responsibly at the school site in accordance with the policies established by the governing board.

7.4

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Standard 8: The induction of novice teachers into the teaching profession is structured to provide maximum opportunity for responsible experimentation and reflection on teaching and learning. 1 2 3 4 5

Indicators:

8.1 Novice teachers are introduced to the Professional Practice School in cohorts consisting of a minimum of five individuals.

8.2 Novice teachers are introduced to teaching through carefully staged levels of responsibility. [7]

8.3 Novice teachers have responsibility for establishing their own goals and for selecting their own actions appropriate to each stage of induction. [8]

8.4 Novice teachers have opportunities to judge their goals, their actions, and the consequences of their actions in light of recognized concepts, theories, and principles of teaching and learning. [9]

8.5 Supervisors have the time and ability to monitor each novice's interpretation of his or her experiences and conclusions about goals, actions, and the consequences of those actions. [10]

8.6 Supervisors are able to influence the novice's interpretations and conclusions by offering contrary evidence and rival hypotheses, and by criticizing them in light of recognized concepts, theories, and principles of teaching and learning. [11]

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7 (Phillip C. Schlechty, p. 39)
8 (Mary Kennedy, pp. 15-17)
9 Ibid.
10 Ibid.
11 Ibid.

Standard 9: There is evidence of an orientation to educational problem solving and research that is experimental in nature. 1 2 3 4 5

Indicators:

9.1 Mechanisms exist at the school and district levels that have successfully contributed to problem identification and problem resolution at the school site.

9.2 A catalogue is maintained of the problems and issues that individuals and teams have addressed through experimentation and research over the past twelve months.

9.3 Research and experimentation have resulted in:

9.3.1 curricular changes that promote depth of understanding as opposed to mere coverage.

9.3.2 patterns of classroom interaction that encourage students to be the active initiators of their own learning.

9.3.3 structures for human interaction that promote trust and acceptance of responsibility.

9.3.4 daily rituals and procedures that promote a feeling of community.

9.3.5 greater respect by state and district authorities of the needs and capabilities of educators.

9.3.6 more effective induction strategies for new teachers.

9.3.7 research that reflects disciplined inquiry into teaching, learning, and organizational life.

References

Houston, Holly M. "Restructuring Secondary Schools." Ed. D. dissertation, Teachers College, Columbia University, 1988.

Kennedy, Mary. "Establishing Professional Schools for Teachers." Unpublished manuscript commissioned by the American Federation of Teachers, 1988.

Levine, Marsha. "Background Paper: Professional Practice Schools." American Federation of Teachers, unpublished manuscript, 1988.

Little, Judith Warren. "Norms of Collegiality and Experimentation: Workplace Conditions of school Success." American Educational Research Journal 19 (3): 325-340.

McLaughlin, Milbrey. "Teacher Evaluation and School Improvement." In Rethinking School Improvement: Research, Craft, and Concept, pp. 162-75. Edited by Ann Lieberman. New York, Teachers College Press, 1986.

Schlechty, Phillip C. "A Framework for Evaluating Induction into Teaching." Journal of Teacher Education (Jan./Feb. 1985): 37-41.

Wise, Arthur E.; Darling-Hammond, Linda; McLaughlin, Milbrey W.; Bernstein, Harriet T. "Case Studies for Teacher Evaluation: A Study of Effective Practices" (N-2133-NIE). Santa Monica, California: The Rand Corporation, 1984.

ESTABLISHING PROFESSIONAL SCHOOLS FOR TEACHERS*

Mary M. Kennedy

Drawing on the teaching hospital analogy, many education reformers dream of a place where teachers can study and learn about teaching as they are teaching. The envisioned "professional development school" would be a functioning elementary or secondary school with a teacher education program more rigorous than the current student teaching programs are, yet more practice-oriented than the current university programs for teaching often are.

Though the concept of professional development is intriguing, the details of its operation have not yet been worked out. A great deal more dialogue and debate is needed to transform the dream into a workable blueprint. Much of that dialogue will address two important points: the nature of professional expertise that is to be developed in these schools, and the processes by which professional expertise is developed. This paper contributes to the dialogue by examining both of these issues--the nature of professional expertise and the process by which it is developed--and presents an argument for a particular professional development strategy.

The paper has three sections. The first examines the nature of professional expertise. The second examines the most prevalent in-school method of preparing teachers--student teaching. The third section draws on the first two to derive a set of conditions for professional development school programs, and then illustrates these criteria by applying them to a few examples of learning opportunities that could be offered to novice teachers.

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Mary M. Kennedy

The Nature and Content of Professional Expertise

Professional development schools would have an easy time of it if their goal were to provide professional knowledge. It is easy to tell someone that water boils at 212 degrees, and not too difficult to get them to remember that. With these tasks accomplished, we can say that our learner has acquired some knowledge. We can also provide more elaborate knowledge by pointing out that boiling water kills resident bacteria, and we can assure that our learner remembers this as well. The difficulty comes when we want to assure that our learner will actually boil water when it is necessary to do so. To perform this act, our learner must: (a) translate the knowledge from a sentence form into an action form; (b) adopt a goal of eliminating bacteria, and (c) recognize situations where this action will contribute to this goal. When these things happen, we say our learner has developed expertise. When knowledge is connected to situations, when it ceases to be a repository and becomes dynamic and operational, it has been transformed into expertise.

In an earlier review of professional education literature, I identified four forms of expertise, and I found that knowledge contributes to each in a unique way (Kennedy, 1987). One form of expertise consists of the application of technical skills. Doctors apply technical skills when they sew up wounds, architects when they draw blueprints, and teachers when they suppress student disruptions. Another form of expertise consists in applying concepts, theory, and principles. Principles are usually in the form "if x then y", or "to accomplish x, do y". The task of the practitioner is to identify the right principle to apply to each particular situation, and to apply it.

The third form of expertise consists in the ability to critically analyze a situation and to generate multiple interpretations of it. Lawyers do this when they identify the potential legal precedents that could apply to a case, teachers do it when they generate hypotheses for why a child is reluctant to participate, and movie critics do it when they consider various analogies that could be used to characterize a particular film. Rather than finding the right principle to apply to each case, critical analysts are aware of multiple and sometimes competing principles and concepts that could be applied to the same situations. Their task is to examine both the principles and the situation, and to select the most appropriate match. Critical analysis is a form of expertise especially relevant to professions whose "actions" are primarily intellectual rather than physical--historians, literary critics, or lawyers, for instance.

Finally, expertise can consist in deliberate action. Like critical analysis, deliberate action recognizes multiple ways of interpreting a situation. But it goes beyond analysis and yields an action. As a form of expertise, deliberate actions acknowledge recognized "if-then" principles, but they also acknowledge that multiple, conflicting principles may apply to the same case. Just as the critical analyst chooses among alternative ways of interpreting a case, the deliberate actor chooses among alternative goals that may be sought in a given situation. The goal provides a frame of reference from which actions can be chosen.

Deliberate actions entail guesses as to what the likely outcomes of actions will be, and choices about actions and outcomes that are based on those guesses. It is the actor's active experiences with this or similar cases that enable him to define a goal from among many that one could

focus on in any given situation. For instance, the lawyer who recognizes several potential precedents in a case uses her experience with this particular judge to choose the precedent-- and, concurrently, a goal for the case--that is most likely to succeed with this judge. The teacher with the reluctant child chooses his action on the basis of his prior experience with this child, and the architect revises her design on the basis of her prior encounters with similar landscapes.

These four forms of expertise are distinguishable not only by the knowledge they incorporate but also by the way in which knowledge is linked to action. When expertise is the application of technical skills, the knowledge <u>is</u> the action. When expertise consists in applying concepts, theories or principles, knowledge exists independent of action and provides the decision rules for choosing an action. In either of these two cases, the knowledge is codified and identifiable, and can be imparted to the practitioner. This is not true of the latter two forms of expertise. In these, actions are not guided by stable decision rules. Instead, the frames of reference one might rely on during critical analysis may contradict one another. To select one, the practitioner critically examines <u>both</u> the knowledge <u>and</u> the situation in order to produce a good match. In the case of deliberate action, the frame of reference may be a goal rather than a theory, but the choice of goal entails critical examination of a range of potential goals a well as examination of one's prior actions in this or like situations in order to find the best match between goal and situation. And just as a critical analyst may change frames of reference if she cannot adequately interpret the situation, a deliberate actor may change her goal if she cannot accomplish the original goal.

The first two forms of expertise imply that there is an explicit body of content that should be imparted to the novice. I will use the term <u>content</u> to refer to the technical skills, concepts, theories, or

principles that are contained in codified bodies of professional knowledge. These two forms of expertise depend on content that can be defined in advance, organized into a curriculum, given to novices, and later applied by them. For these forms of expertise, professional preparation would consist of giving novices the content and then showing them how to apply it.

The role of content in the latter two forms of expertise is less clear. Content is not automatically applied to situations; instead critical analysts and deliberate actors seek optimal matches between concepts and principles, on one side, and the situations they encounter on the other. Both analysts and deliberators must have access to content, but they also must know how to examine the content, how to examine the situation, and how to examine the match between the two.

And because the criteria for goodness-of-fit between frames of reference or goals, on one hand, and the situations encountered on the other, are themselves a matter of judgment, these forms of expertise require more than knowledge. They require an ability to engage in such analyses; a desire to engage in such analyses and a disposition to continually seek better solutions. For these two forms of expertise, therefore, expertise cannot be transmitted through content alone. Instead, it requires the transformation of the novice into a person who is inclined to critically examine her own practice and to search for ways to improve it.

Of all the forms of expertise, the most difficult in which to identify content is deliberate action. Deliberation is based not only on whatever codified skills, principles or concepts have been formally transmitted, but also on one's own experiences in this and analogous situations. Each learner deduces morals to each story he or she encounters, and draws on these morals in future deliberations. These experiences not only alter

interpretations of future experiences but alter interpretations of previously-learned codified knowledge as well (Kennedy, 1983). Everything--thoughts about appropriate goals, interpretations of codified knowledge, and ways of defining situations--evolves over time. Presumably, each deliberator continually reconstructs his own knowledge base, as he encounters new experiences and reexamines goals in each new situation, so that what counts as "knowledge" varies from individual to individual even within a profession. And what counts as an appropriate goal in any given situation may also vary depending on which member of the profession encounters the situation.

Implications for Professional Development Schools

In the foregoing discussion, I have identified four forms of expertise, each of which entails a unique way of transforming knowledge from sentences into actions. It should be apparent that these forms of expertise are not independent of one another: most professions require all of these forms of expertise, and most practitioners possess each form of expertise. But it is useful to separate them when thinking about professional development, for these forms of expertise imply different strategies of professional preparation. In thinking about the unique features of professional development schools, for instance, relative to universities or other contexts for teacher preparation, I draw two conclusions.

1. **The form of expertise most appropriate for professional development schools to foster is deliberate action.** Deliberate actions are based in experience, and expertise in deliberate action can only be developed by experience deliberating; that is, experience establishing real goals in real situations, working toward those goals and learning from these experiences which goals can and can't be met under which kinds

of circumstances. The most salient feature of the professional development school, relative to the university, is that it provides the real experiences needed to begin deliberating about practice.

2. **The form of expertise most necessary for professional development schools to attend to is also deliberate action.** Even if professional development schools did not try to foster deliberate action, novices would still think about their experiences and would draw conclusions that would influence their future actions. Yet their thinking may be flawed. When failing to meet a goal, they may assume the goal was not appropriate, when in fact their method of approaching it was not. Real experiences happen fast, and a novice may not be able to grasp all the relevant aspects of his experiences without assistance. Without guidance, novices may draw many erroneous conclusions about their practice, and these conclusions may influence their practice for years to come. Not only are professional development schools particularly suited to fostering deliberate action, therefore; they have an obligation to do so, since novices will begin to develop models of practice, either well or poorly, when they begin to practice.

Yet deliberate action is also the most difficult form of expertise to foster, for two reasons. First, the process of deliberation is normally a private one. Many teaching experiences are not witnessed by other teachers. Further, practitioners may ruminate about their experiences at odd hours of the day, when other practitioners are not available to review or influence these conclusions. Finally, the nature of practice is such that practitioners may draw conclusions that are hard to articulate, and may base these conclusions on experiences that are hard to describe. It is not clear how a supervisor or mentor can hope to improve a novice's deliberations, if he is unable to monitor those conclusions or to influence them.

Methods of Fostering Expertise

Professional development can include an infinite number of activities, some better than others, some more suited to certain forms of expertise than others. In this section, I briefly review research on ways of fostering different forms of expertise.

There exists a relatively large body of research on the development of technical skills (Joyce and Showers, 1980). These skills are not acquired casually. Four things must occur: (1) the skills need to be explicitly defined and their purpose explained to the novice; (2) the skills need to be demonstrated to the novice; (3) the novice needs an opportunity to practice the skills and to receive feedback; and (4) these first three events must occur in controlled environments designed specifically to teach these skills, rather than in the unpredictable world of real practice. Only after novices have mastered the skills in a sheltered environment, Joyce and Showers argue, should they practice the skills in real classrooms.

While there is less research on teaching novices to apply concepts and principles, there does exist a widely-accepted conventional wisdom regarding the development of this form of expertise. It is generally assumed that novices first need to learn the concepts, theories and principles, and only later can they learn to apply them. That is, it would not be useful for students to practice their profession or to observe practitioners before they have learned the relevant codified knowledge. Most university-based professional schools, whether they are preparing businessmen, doctors, social workers or engineers, reflect this view: they offer a year or two of courses in the scientific bases of the profession, sometimes accompanied by laboratory courses that enable students to apply the concepts of principles, and at the end of the program they provide an internship during which students presumably learn to apply the content to practice.

We also have a model available for fostering critical analysis. This is the form of expertise that is most heavily emphasized in law schools, where students engage for three years in almost nothing but critical analysis. They read and analyze appellate court decisions and debate them in class. Their professors raise questions and objections, and encourage students to question one another. The goal of law schools is to make students "think like lawyers"--to be critical analysts. Their method of instruction is such that content--legal concepts, principles and precedents--is embedded in the analytic tasks, so that students absorb it in the process of learning the process. Because the analysis determines which frame(s) of reference are most relevant and why, the analytic task is difficult to separate from that content. By the time budding lawyers have analyzed cases for three years, they have been transformed into critical analysts. They think like lawyers. And, though they have acquired a body of knowledge, they have not acquired that knowledge independent of the analytic process. They have acquired it through the analytic process.

Much less is known about how to foster deliberate action. Presumably, one would want to give novices an experience similar to that which lawyers receive; they should receive extended, intense practice analyzing their own actions and the effects of those actions, with a mentor constantly challenging their reasoning. The training that Shon (1983) describes for architects satisfies this requirement: The novice architect designs and re-designs the same building, trying it many different ways, and applying a variety of criteria to her efforts, all with the aid of a critical mentor. But the architect's actions occur on the drawing board, not in a classroom with other actors. A teacher's actions are nearly all interactions. It is not possible to re-teach the same math lesson to the same students several times, examining the merits of each successive trial with one's mentor. Actions and situations are necessarily non-repeatable. Furthermore, Schon (1987) argues that, to be effective,

the mentor's questions and challenges must come at the very moment the novice is deliberating, and that moment usually occurs when the actor is in the situation. Again, this may be possible for the architect, who can engage in a conversation while studying her drawing and puzzling over it. But a teacher cannot engage in an intense analytic dialogue while in the flow of action. Analysis requires the action to be temporarily frozen. And if the conversation occurs later on, much of the detail of the event may already be lost to memory; consequently, some interpretations may be lost as well.

Many authors have criticized existing teacher preparation programs on the ground that these programs fail to foster expertise in the from of deliberate action. Probably the earliest critic was John Dewey (1904/1965), who distinguished the control of the "intellectual methods" of teaching from the mastery of skills, and introduced the notion of laboratory schools into teacher education. Dewey used the term laboratory because he intended these schools to be places of experimentation, where novice teachers would be encouraged to try different actions and to evaluate the consequences of those actions. Several contemporary authors have emphasized the same tension that Dewey was concerned about. Arnstine (1975), for instance, complains about apprenticeship as a means of learning to teach, on the grounds that apprenticeship results only in copying the behaviors that are observed, whereas the goal of preparation should be to cultivate relevant understandings and dispositions. Similarly, Eggleston (1985) notes a tension between novices' short-term need for immediate coping skills and their long-term need to incorporate critical reflection into their practice.

There is ample evidence that, during the first few weeks of teaching, usually during student teaching, novices do change their views substantially. But the evidence does not suggest that they are becoming better deliberators. Instead, it suggests that they become less

theoretical, less ideal, more practical, and more control-oriented (Haberman, 1982). Research on the nature of student teaching experiences has suggested several hypotheses for why this is so. Tabachnik, Popkowitz and Zeichner (1979-80), for instance, found that student teachers' activities were limited to mechanical teaching of short-term skills, testing, grading, management or recitation. Furthermore, student teachers had little control over their activities. With opportunities and responsibilities so severely curtailed, novices have little opportunity to deliberate over, or to try, alternative courses of action. On the other hand, Hodges (1982) found that novice reading teachers regressed when they had entire responsibility for their own teaching--that is, when there was no cooperating teacher in the classroom to curtail the novice's responsibility. In interviews, the novices attributed their behavior to the press for classroom survival, to limited time, and to their inability to recall the formal content they had learned in their university methods courses now that they needed it. Thus, as a learning opportunity, student teaching may fail if the novice has so little responsibility that there is no opportunity for experimentation and for deliberation about these experiments, and it may fail if the novice has so much responsibility that he is overwhelmed to the point where deliberation is not possible.

With regard to the guidance novices receive, McIntyre and Killian (1986) found that cooperating teachers give very little feedback to student teachers and McNergney and Francis (1986) found that supervisors tended to be non-analytic in their interactions with student teachers, concentrating instead on being supportive. Tom (1979) found that supervisor interactions with novices were quite predictable--praise something, then offer constructive criticism, then end on a positive note--but that there was no substantive continuity from one supervisory visit to the next. Furthermore, visits were infrequent, and supervisors had no sense for whether the behaviors they observed were representative of the novices general strategies. Zeichner (1987) found that even in a

program that strongly emphasized reflective teaching, not all supervisors engaged in the kind of interactions that one would expect to foster such expertise. Only 19 percent of seminar discourse indicated critical reflection, and many supervisors were more oriented toward technical skills or toward personal growth--that is, finding a style that "works for you"--than toward stimulating critical analysis or deliberate action. Finally, Powell (1987, personal communication) found that the curriculum of seminars accompanying private school internships usually lacked any thematic focus and instead offered novices an eclectic mix of "stuff." One session might be on the use of computers, another on assertive discipline, another on cultural literacy.

Implications for Professional Development Schools

The nature of deliberate action suggests that there are some criteria by which learning opportunities for teachers could be assessed. In assessing the relative merits of potential learning opportunities for teachers, we might look for evidence that they accomplish the following:

1. **Novices must have responsibilities that require deliberation: responsibilities for establishing their own goals and for selecting their own actions.** The act of deliberation involves defining the situation and selecting goals as well as actions to suit the situation. Yet Zeichner found that student teachers' tasks were limited to relatively well-defined activities assigned by the cooperating teacher. Under these circumstances, student teachers have no opportunity to engage in the central task of deliberation. The task of professional development programs must be to assure that novices have this responsibility.

2. **Novices must have the opportunity to deliberate. They need both the time and the knowledge to judge their goals, their actions, and the consequences of their actions in light of recognized concepts, theories, and principles of teaching and learning.** This second

criterion compliments the first. While it is important for novices to take responsibility for situations, the evidence from Hodges' study suggests that, when given full responsibility for classrooms, novices were overwhelmed by their responsibilities, and were unable to recall the lessons from their methods courses. If novices are to learn to deliberate over their own goals and actions they must have both (a) the time to deliberate and (b) the content--that is, the theories, concepts and principles--needed to interpret situations, establish goals and evaluate the consequences of past and proposed actions.

3. **Supervisors or mentors must be able to monitor novice's deliberations— to monitor their interpretations of their experiences and their conclusions about their goals, their actions, and the consequences of those actions.** If novices are interpreting and drawing conclusions about their experiences, we do not know what those conclusions are, for the current system of supervision does not enable supervisors to learn what their student teachers are concluding about their experiences. Consequently, almost any conclusions, erroneous or fruitful, will remain with the novice when he leaves student teaching to take a full time position. Even if these conclusions cannot be readily influenced, professional development schools have an obligation to monitor the views that novices are forming and to prevent teachers with erroneous or indefensible views from continuing in the profession.

4. **Supervisors or mentors must be able to influence novices' deliberations by offering contrary evidence and rival hypotheses, and by criticizing them in light of recognized concepts, theories and principles of teaching and learning.** The evidence reviewed above suggests that current guidance provided to novices is non-analytic, and tends to provide support rather than critique. If this is true then supervisors are probably not influencing either the conclusions or the deliberative process used to reach those conclusions. Yet if conclusions about past

actions and their consequences are contributing to future decisions, supervisors must somehow assure that novices are aware of alternative interpretations of their early experiences, that they understand how their actions would be judged according to a variety of recognized standards, and that they are aware of outcomes foregone by their choice of goals and actions.

But how supervisors are to influence deliberations is not at all clear, for, by definition, deliberate action renders professional concepts and principles relative to specific situations. When expertise is defined as the application of recognized concepts or principles, it is easy to define standards for professional practice and easy for observers to judge the appropriateness of a novice's actions. But when decisions depend on how one interprets the situation, the observer loses authority for judging the appropriateness of any particular action. Presumably, all actions are defensible as long as the actor can provide a situational reason for them. If professional development schools are to foster deliberate action they must do so in a way that promotes professional standards while at the same time acknowledging that situations can be viewed in multiple ways, and that it may be legitimate to alter goals to fit situations. This leads me to a fifth conclusion:

5. **Supervisors or mentors must infuse content into novices' deliberations about the experiences and actions.** Content--that is, professional skills, concepts, theories and principles--provides the standards for judging other's practice, the framework for establishing one's own goals, and the criteria for evaluating the consequences of one's own past and proposed actions. Content enables self-regulation as well as the grounds for critical self-assessment. Consequently, professional development schools have an obligation to infuse skills, concepts, principles and theory, into novices' deliberations about their actions and the consequences of their actions. Just as lawyers learn, through the

process of critical analysis, how to find and judge content that may be relevant to a case, teachers must learn through their own deliberations to define and judge content that may be relevant to their goals and actions.

This last point may seem contrary to the thrust of deliberate action: I argued earlier that content was important when expertise consisted in the application of skills, concepts and principles, but that critical analysis and deliberation required an inclination toward analysis and the ability to reject content when it was not appropriate to a situation. But content provides the stuff of deliberation: the frames of reference for interpreting situations, the value judgments for selecting goals, and the principles for choosing among competing actions. Even a decision to reject a particular principle or concept requires awareness of the principle and how it could be applied to a situation. It is competition among various contents that make deliberation rigorous. Finally, content provides the language for describing and interpreting experiences. If each teacher were left to deliberate in private, conversations among teachers would resemble the tower of babble.

The Task of Professional Development Schools

The principal advantage of a professional development school is that it can foster teaching expertise as teachers are teaching. The discussion at the front of this paper, on the nature of expertise, yielded two important conclusions regarding the role of the professional development school in fostering expertise. These are:

1. The form of expertise most appropriate for professional development schools to foster is deliberate action.

2. The form of expertise most necessary for professional development schools to attend to is also deliberate action.

The discussion on methods of fostering expertise, and on fostering deliberate action in particular, suggested some criteria that could be used to evaluate the potential of a professional development program for fostering deliberate action in teaching. These criteria are:

1. Novices must have responsibilities that entail deliberation: responsibilities for establishing their own goals and for selecting their own actions.

2. Novices must have the opportunity to deliberate. They need both the time and content knowledge to judge their goals, their actions, and the consequences of their actions in light of recognized concepts, theories, and principles of teaching and learning.

3. Supervisors or mentors must be able to monitor novice's deliberations--to monitor their interpretations of their experiences and their conclusions about the goals, their actions, and the consequences of those actions.

4. Supervisors or mentors must be able to influence novice's deliberations by offering contrary evidence and rival hypotheses, and by criticizing them in light of recognized concepts, theories and principles of teaching and learning.

5. Supervisors or mentors must infuse content into novice's deliberations about their experiences and actions.

These conclusions are interrelated. Professional development schools must help novices deliberate better--help them formulate more hypotheses to account for the situations they encounter, help them apply more varied standards to their actions, and help them engage in a more critical

analysis of the goals they establish for themselves. To do this, professional development schools must see that each novice has an opportunity to engage in deliberate action--to take actions that are deliberate and to deliberate about those actions both before and after they have been taken. They must also find ways to monitor novice's thoughts and respond to them. When they respond, they must find ways to infuse content into novice's deliberations, for it is content--the professional concepts, theories, and principles--that provides the criteria for judging actions and their consequences. The two central tasks of the professional development school, then--improving novices' deliberate action and imparting usable content--are actually the same task, for deliberations are improved by infusing content into them and usable content is imparted by infusing it into deliberations.

How to Do It

The preceding sections of this paper have put forward an argument both for the kind of expertise professional development schools should try to foster and for how that kind of expertise is most likely to be fostered. But the principles are still at a rather abstract level. To illustrate how they might be used in designing a professional development program, I now apply these criteria to fourteen specific kinds of learning opportunities that have been or could be used to help teachers learn to teach. I try to evaluate each method for its potential in fostering deliberate action, based on the five criteria listed above. The results of this analysis suggest a small set of learning opportunities that offer some promise for fostering deliberate action.

1. Lectures, courses, and readings. Lectures are the most common form of learning opportunity found within universities, both in liberal arts programs and in professional programs. They are presumed to be particularly appropriate for transmitting concepts, theories and

principles. Though they may be very useful for helping novices learn to apply these concepts and principles to practice, they are not likely to foster deliberate action for they do not permit novices to select their own goals. Further, the format of the conventional university course is such that the only opportunity to influence a student's deliberations occurs in the context of a term paper, to which professors respond after the student has finished deliberating, rather than during the process of deliberation.

2. Laboratory experiences with fixed assignments and outcomes. Laboratories are also common to universities. In fact, they often accompany lecture courses, so that students have an opportunity to see or apply in the laboratory the concepts and principles they have learned about in the lecture. Laboratories are especially well-suited to preparing novices to apply concepts, theories or principles to situations, but may not be appropriate for developing deliberate action, for they usually entail pre-defined assignments, with outcomes that are fixed and known in advance. They do not enable students to establish their own goals, to choose their own actions, or to assess their actions in light of competing principles.

3. Case diagnosis. Case diagnoses occur when students or novices are called upon to analyze real or hypothetical cases, such as videotapes of classroom events, to interpret them and to generate alternative hypotheses about their antecedents and consequences. These experiences are generally presumed to be useful in fostering critical analysis, in that novices learn to see all the dimensions of a situation, but they are not necessarily adequate for fostering deliberate action, for they foster analysis in the absence of one's goals and actions.

4. Problem analysis. A variant of case analysis that is common in business schools requires students to analyze a case with an eye toward solving a problem. The problem may be, for instance, whether company A

should purchase company B. One student may analyze the problem using profit and loss analyses, another by examining debt and equity, another by assessing the impact on human resources, and another by estimating market advantages and disadvantages. Because students establish their own criteria for solving the problem, and use whatever data they feel are appropriate for assessing the consequences of the decision, this learning opportunity does engage students in deliberate action. Furthermore, if students discuss their strategies and reasoning in class, we have an opportunity to monitor their conclusions, to challenge them, and to introduce important concepts and principles into their deliberations.

5. Skills training or microteaching. Training in specific teaching skills is most likely to occur within university-based teacher preparation programs. Such training has been shown to be effective in training novices to perform particular technical skills. However, it is not likely to foster deliberate action. Skills training provides content in the context of action, but does not permit deliberation about alternative courses of action, not does it enable us to monitor or influence novices' conclusions about these experiences.

6. Tailored projects. Tailored projects are generally assignments made within the context of a university course. Within the boundaries of the course objectives, students are permitted to choose their own projects, plan a strategy for achieving their goals, and then implement that strategy. The point of tailored projects is to keep them sufficiently contained as to not overwhelm the novice and yet sufficiently open as to force deliberations. They satisfy our first criteria for learning opportunities, in that students choose their own goals and actions. They may or may not satisfy other criteria, however. If projects are done independently, and turned in when completed, they may not enable us to influence students' deliberations, for they will be finished with their deliberations by the time we learn of them and respond.

7. Early field experiences. I use this term to refer to opportunities often provided by universities for Freshmen or Sophomores to visit schools. These early field experiences often do not have highly specific learning goals. Instead, they provide an opportunity for students to revisit schools with an eye toward how it would feel to be a teacher, and to decide if this is indeed a career they wish to pursue. Since such experiences often entail observation only, they are not likely to foster deliberate action.

8. In-class coaching. In-class coaching refers to efforts to train novices to perform particular teaching techniques. It would be very difficult to coach without advocating a particular teaching strategy, and to the extent that one strategy is advocated, the coach is teaching teachers to apply technical skills or general principles rather than to deliberate about the consequences of their actions.

9. Guided practice. By guided practice, I refer to the kind of assistance normally provided under the rubric of "student teaching." I use a broader term because I have no reason to believe that the assistance provided to first-year teachers in induction programs, for instance, is substantially different. If that is true, then this broader term can apply to these learning opportunities as well as to student teaching. Under guided practice, the novice generally is able to observe someone else teaching and to discuss that person's teaching with him or her. In addition, the novice has someone who can observe and comment on his or her own practice as well. Although it is possible in principle for guided practice to foster deliberation, the literature suggests that this approach does not in fact foster deliberation. Supervisors' and cooperating teachers' conversations with novices mainly convey their judgments as to what they saw, rather than ascertaining what the novice intended to do and how the novice interprets the event. Further, supervisors and cooperating teachers appear to provide emotional support rather than challenging the novices' conclusions.

10. Support groups. Support groups are loosely formed groups of novices who meet regularly to talk about their experiences learning to teach. The conversation need not be organized around any particular topic; instead, it responds to the interests and concerns of group members. While such groups may provide emotional support to novices, and while novices may gain some insights from one another, support groups are not likely to foster deliberate action, for their orientation is toward emotional support rather than critical analysis of actions and their consequences.

11. Maintaining journals. A recent innovation in teacher education requires novices to maintain a journal about their experiences. The maintenance of a journal is presumed to encourage students to deliberate in writing over their experiences. Because journals can be read by mentors or others, they enable us to monitor the conclusions novices are reaching from their experiences. And we can respond to these conclusions with marginal comments of our own, offering rival hypotheses or suggesting other content that could be used to judge an action or its consequences. Whether our comments actually influence the novice's conclusions, however, depends on whether they are offered when the student is still deliberating or after the student has finished deliberating about an experience.

12. Intern seminars. Almost every profession that offers students an internship also offers a seminar designed to help novices make sense of their intern experiences. These seminars meet usually weekly. Like the agenda of support groups, the agenda of the internship seminar may vary from week to week, responding to the concerns of novices. Internship seminars are sufficiently undefined that different seminars could foster very different kinds of expertise. One seminar leader may use the seminars as cheerleading sessions, so that the seminar is no different from a support group. Another may use it as a platform to present

concepts and principles. While it is possible in principle for these seminars to foster deliberate action, the literature suggests that they have not tended to do so.

13. Study groups. Study groups may appear very similar to internship seminars or to support groups, but they differ in an important way. Study groups are formed to examine a particular substantive issue related to practice. One study group may be formed to examine issues of classroom management and discipline, another to examine issues of third-grade children's understanding of mathematics, another to discuss techniques for balancing attention to the writing process with attention to the written product. Study group members meet regularly and are encouraged to draw on their own experiences as they discuss the issue. Such groups have the potential to enhance novices' deliberate action: they encourage novices to examine their experiences in light of particular content, and to judge alternative courses of action and their possible consequences in light of the content. Furthermore, the conversations enable the study group leader to monitor the novices' deliberations, to influence them by introducing contrary evidence and rival hypotheses, and to infuse content considerations into novices' conclusions about their experiences. Whether study groups can succeed, however, is still unknown. Because they remove the discussion from the field of action, deliberations over any particular experience are necessarily based on second-hand information, and if that information is inadequate, then so will be the deliberations about it.

14. Independent practice. By independent practice, I mean the practice that the vast majority of teachers and other professionals engage in every day. It is practice that is conducted without the benefit of consultation with others, that is deliberated over in isolation, and that nevertheless influences future actions. It requires the practitioner to select goals and actions, and to the extent that practitioners are

inclined to deliberate about their experiences, they may profit from them. Because the practitioners are isolated, however, we are unable to monitor their conclusions or to influence them.

Taken together, these 14 varieties of learning opportunities could probably assure that a practitioner gained all four forms of expertise. But they appear to be differentially effective for different forms of expertise. Of the fourteen, only a few appear to be appropriate for fostering deliberate action, and the potential of some of these is still problematic.

To illustrate these few techniques, Chart 1 (p. 142) shows how a sample of these categories of learning opportunities could be combined with particular content areas to produce particular professional development activities. I have selected content areas that represent the areas generally considered relevant to teaching and that represent the array of codified content--skills, concepts, theory and principles. They are:

(a) techniques of classroom management and discipline (these are generally assumed to be technical skills)

(b) teaching techniques (these may be considered technical skills or application of principles)

(c) concepts and principles having to do with the relationship between school, society, and parents (these are generally assumed to be concepts and principles)

(d) knowledge of children's cognitive and social development (these are generally assumed to be concepts and principles)

Chart 1

Sample learning opportunities that are likely to foster deliberate action

Content Area	Problem Analysis	Study Group	Tailored Project	Internship Seminar
Child Development	Cell 1	Cell 2	Cell 3: Tutoring One Child	Cell 4
Subject Matter	Cell 5	Cell 6: Mathematics Study Group	Cell 7	Cell 8
School, Parents, Society	Cell 9: Solving a Parent/School Conflict	Cell 10	Cell 11	Cell 12
Teaching Technique	Cell 13	Cell 14	Cell 15	Cell 16: Video Deliberation
Classroom management, discipline	Cell 17	Cell 18	Cell 19: Organizing a class activity with no instruction involved	Cell 20

(e) the content to be taught--school subject matter (expertise in the subject matter is sometimes assumed to be principles and skills and sometimes to be critical analysis--how to weigh ideas and to apply different substantive lens' to disciplinary problems).

Chart 1 enables us to focus our programmatic attention on those kinds of learning opportunities that are most likely to foster deliberate action, and at the same time to focus our attention on the content we have deemed most important for teachers. The cells are numbered for reference, and a few contain cryptic descriptions of learning opportunities. Below I outline the details of these learning opportunities.

Cell 3: Tutoring one child: Tutoring involves many aspects of teaching--developing goals, designing lessons, implementing lessons, diagnosing the student's understanding of the material, revising plans and revising goals. Consequently tutoring meets our first criterion listed above: it enables the novice to develop his or her own goals and strategies. Furthermore, placing the project in Chart 1, which requires a content area to be identified, satisfied our second criterion, for we provide the novice with a frame of reference for judging his actions and their consequences in light of recognized concepts and principles. To satisfy the third and fourth criteria, we need a mechanism that enables us to monitor the novices conclusions and to influence those conclusions. This could occur if we met regularly with the novice to discuss the novice's "case," criticized the novice's activities in light of the concepts and principles of child development, and if we occasionally observed the novice tutoring the child so that we are able to provide rival hypotheses and contradictory evidence from our own observations.

Because such a project might be construed as a variant of guided practice, it might be instructive to review the ways in which it differs from guided practice. First, it resolves the degree of responsibility in

a very different way. Student teachers can be hampered by too little responsibility when their cooperating teachers hold the real authority in the classroom, and by too much responsibility when they are left in complete charge of the classroom. Tutoring avoids both of these pitfalls. The tutoring novice has full responsibility for the tutoring project, a feature that is important to deliberate action. But the responsibility is limited to one student, one subject, and one hour or half-hour a day, so that the student has ample time to digest and deliberate over his or her actions. Second, the student teacher's supervisor interacts with the student only occasionally, when he or she observes a teaching episode, whereas the tutoring novice's supervisor is involved in continuous conversation with the novice about the tutoring project. Consequently, the tutoring novice's supervisor knows the development of the novices reasoning over time and can respond to that rather than to random events he or she happens to observe. Finally, the student teacher's supervisor has no substantive agenda, so that his response to the student's teaching episode is unpredictable and most likely unrelated to the student teacher's intentions and interests in the episode. In contrast, the tutoring novice's supervisor has a clear agenda. It is to enhance the novice's ability to evaluate goals and actions in light of a particular set of concepts and principles.

It should also be clear that the tutor's supervisor is not an ordinary teacher. This is a person who is thoroughly grounded in the content--the theory, concepts and principles, but who also is well grounded in experience and aware of the contradictions experiences may offer to theory. Finally, this is an individual who is experienced in fostering deliberate action in adult learners.

Cell 6: The mathematics study group. The second learning activity identified in Chart 1 is a mathematics study group. Because it too addresses a particular content area, it is not a group which can discuss

anything that is on any one's mind. Instead, it is a group formed specifically to discuss mathematics and the teaching of mathematics. All group members are engaged in teaching mathematics, though they may be teaching it to very different kinds of students. The group meets weekly and discusses issues that have arisen about mathematics in their teaching. A member may describe a problem she encountered explaining a particular concept to her students, and her realization that she really did not understand the concept herself. The group may then examine that mathematical concept in depth, and discuss alternative ways of thinking about it and explaining it to students. Another member may raise questions about a section of a math textbook and its applicability to particular mathematical concepts. As members deliberate, the study group leader interjects lessons about mathematics when it is apparent that novices do not understand the content, and inserts mathematical criteria into discussions about evaluating textbooks, explaining concepts or sequencing lessons.

The study group in mathematics could be construed to be a variant of the internship seminar, but it is not an open-ended conversation. Instead, it focuses on a particular content area and encourages deliberation within that area. It also satisfies our four criteria. Because members of the study group are practicing, they have an opportunity to establish their own goals and strategies and to evaluate their actions and the consequences of those actions. Second, the weekly conversations enable us to monitor their conclusions and to challenge those conclusion. The content focus of the study group enables us to critique their goals and actions in light of these concepts and principles.

Cell 9: Analysis of a parent-school conflict. Cell 9 provides an example of problem analysis. If a professional school is to rely on problem analyses as a routine kind of learning opportunity, it will need

to maintain case histories of real or hypothetical situations, for it cannot assume that "good" examples will naturally present themselves each year. In this case we have designed a problem that should foster deliberation about the relationship between school, parents and society. The problem is multifaceted. It involves a recently rezoned secondary school whose student body has changed from uniformly white, lower-income population to a population that is racially heterogeneous and heterogeneous in family income. Many parents are dissatisfied with their children's new school, and several have threatened to remove their children if the district does not return them to their original schools. Among the new students are many belonging to a particularly strict religion, and teachers have noticed that other students have been cruel and aloof toward these students. During this unrest, a group of middle and upper-income parents has formed in protest of the school's social studies curriculum, arguing that it is not relevant to their youngsters' backgrounds. The textbook they want adopted was recently rejected by the school district's curriculum committee on the basis of research evidence regarding its accuracy. The principal of this school is a strong instructional leader, respected by the teachers, but she is unable to garner confidence from parents. The problem posed to novice teachers, who all teach social studies, is to develop a package of strategies that will resolve these problems. The novices form a committee and meet regularly to develop their plan. A supervisor meets with them, monitors their thinking and challenges their ideas with contrary evidence and rival hypotheses.

Though the problem is hypothetical, not real, it does require novices to choose among competing goals and competing actions--to deliberate. Further, because a supervisor attends the committee meetings, we are able to monitor the conclusions novices draw and to challenge those conclusions. Finally, the supervisor can insert findings from research on parent-school relations and political science concepts related to

governance in education and can stimulate novices to use these concepts and principles to estimate the likely outcome of their plans, and to judge the appropriateness of their goals and strategies.

Cell 16: Video deliberations. Cell 16 represents an attempt to improve the internship seminar so that it is more likely to enhance deliberate action. The procedure works as follows. First, novices are videotaped as they teach once a week. They view these videotapes of themselves and identify one event they are proud of and one event they are dissatisfied with. They establish goals for improving particular aspects of their teaching techniques. One may want to decrease her use of leading questions whole another aims to improve the number and variety of examples and analogies he uses. When novices meet weekly for their seminar, they must be prepared to show one another their good and bad practices, to explain their assessment of these actions, and to define and justify their goals to the other novices. Other novices as well as the seminar leader may question a presenting novice's reasoning, pointing out evidence in the tape that the presenting novice overlooked or suggesting alternative hypotheses to account for the events. The novices goals provide substantive continuity from week to week, and the tapes enable participants to see things in the events that presenting novices did not see.

These video deliberations also satisfy our four criteria. The novices are deliberating about their own actions and their own goals, we are able to monitor their conclusions about these events and to challenge these conclusions. Further, we are able to bring into the conversation concepts, theories and research findings about teaching techniques, thereby encouraging novices to use this content in their assessment of their own experiences and their own goals.

Cell 19: Organizing a class activity with no instruction involved. My last example represents another tailored project. It involves requiring the novice to organize an activity that does not involve specific

instruction in the required curriculum. The activity could be a game at recess, a hike, a trip to the zoo, or a cake bake. The reason I de-emphasize instruction in this example is that this project is intended to foster deliberation about classroom management; consequently the project is designed to minimize attention to other issues.

This example does not satisfy our four criteria as well as the other examples have. Because novices are designing their own projects, it engages them in deliberation. But we may not be able to monitor or to challenge their conclusions. If the novice's project is a one-time event, rather than an on-going event, we may be unable to respond to the novice's conclusions while the novice is still deliberating. We can discuss their plans with them before hand and help them examine their ideas, and we can discuss their assessment of the event afterward. But once the event is finished, our critique may have no consequence for there is no future action or goal to be reconsidered in light of our challenges. Consequently this project does not satisfy our criteria. There may be strategies that can make it work better, however, such as requiring novices to write a paper describing how they would do this event again if they had the opportunity to repeat it, or establishing a system where the novice actually had repeated opportunities to do comparable activities in different classrooms.

Conclusions

This paper presents a number of considerations pertinent to the development of professional development schools. It examines the nature of expertise and argues that professional development schools are particularly well suited to fostering deliberate action. It examines methods of fostering expertise and derives a set of conditions that are likely to foster deliberation. Finally, it illustrates these criteria by applying them to a number of hypothetical learning opportunities.

The paper is not intended to be prescriptive, but rather to provide a frame of reference for planning professional development schools and for evaluating various learning opportunities that could be provided for teachers. The examples presented here are intended to be illustrative of the kinds of opportunities professional development schools might offer to novice teachers. They are by no means inclusive of all possibilities. But careful consideration of these illustrations raises a number of issues about the potential of professional development schools.

One is that the creation of appropriate learning opportunities may introduce serious and complicated staffing problems. Though I sought examples that fostered deliberate action within the context of practice, most of the learning opportunities described here occur outside regular classrooms. Furthermore, the novices were not engaged in full-time teaching activities. That means that professional development schools may find that the goals of fostering expertise conflict with the goal of educating pupils. If novices are given full responsibility for only limited portions of children's education, then experienced teachers must be available to take responsibility for the remainder of these children's education. Furthermore, still others must be available to work with novices in their deliberations. Finally, most of these examples required long-term intense interaction with a supervisor or mentor. Thus, one important implication of the argument presented here is that these programs would be far more costly and far more difficult to develop than conventional teaching internships are. They require at least the following:

I. <u>Staffing patterns which provide</u>:

(a) limited and focused responsibilities for novices so that they can deliberate at length about the responsibilities they do have;

(b) full-time teachers in every classroom so that novices are never overwhelmed by full responsibility for a class;

(c) full-time novice supervisors or mentors who have both content expertise and expertise in helping adults learn;

(d) a rather large complement of supervisors or mentors, each with her own area of content expertise;

(e) a ratio of novices to supervisors or mentors that enables supervisors to spend ample time with each novice.

II. An organization which provides:

(a) a mechanism for coordinating novice activities with regular classroom routines in a way that does not interrupt the regular teacher's rhythm yet enables novices to do such things as tutor a child, organize a hike, or regularly teach the math lesson;

(b) a mechanism for coordinating novice activities to assure that each novice receives an adequate portfolio of learning opportunities, and a method for rotating novices through them all.

III. Program policies that provide:

(a) a method of monitoring novices, a set of criteria for satisfactory progress, a method of flagging those who were not responding well, and a procedure for handling these cases;

(b) criteria for selecting supervisors or mentors that recognizes their content knowledge and their ability to teach adults, rather than their years of experience teaching or their formal degree. An important issue to be determined is whether or not these mentors must themselves be practicing teachers, or whether they can be, for instance, university professors.

Such a professional development program is a far cry from the contemporary method of placing novices in situations where they must observe everything at once, and often can make nothing of it, where it is assumed that chatting during recess with the practicing teacher is sufficient to acquire virtually everything there is to be known, where tri-weekly visits from a supervisor who comments on whatever strikes his or her fancy is assumed to be adequate feedback, and where teachers usually assume full-time responsibilities after six weeks of such assistance.

References

Arnstine, Donald. (1975). Apprenticeship as the miseducation of teachers. Philosophy of Education 1975: Proceedings of the thirty-first annual meeting of the Philosophy of Education Society (pps. 113-123). San Jose, CA: Society for Studies in Philosophy and Education.

Dewey, J. (1904/1965). The relation of theory to practice in education. In M.L. Borrowman (Ed.) Teacher education in America: A documentary history. New York: Teachers College Press.

Eggleston, J. (1985). Subject centred and school based teacher training in the postgraduate certification of education. In D. Hopkins and K. Reid (Eds.) Rethinking Teacher Education. Kent, England: Croom Helm Ltd. pp. 173-194.

Haberman, Martin. (1982). Research on preservice laboratory and clinical experiences: Implications for teacher education. In Ken Howey (Ed.) The education of teachrs (pp. 98-117). New York: Longman

Hodges, C. (1982). Implementing methods: If you can't blame the cooperating teacher who can you blame? Journal of Teacher Education, 33(6), 25-29.

Joyce, B.R. and Showers, B. (1980). Improving inservice training: The message of research. Educational Leadership, 37, 279-385.

Kennedy, M.M. (1983). Working knowledge. Knowledge: Creation, Diffusion, Utilization, 5, 193-211.

Kennedy, M.M. (1987). Inexact sciences: Professional education and the development of expertise. In E. Rothkopf (Ed.) Review of Research in Education, 13, 133-167.

McIntyre, D.J. and Killian, J.E. (1986). Students' interactions with pupils and cooperating teachers in early field experiences. The Teacher Educator, 22(2), 2-9.

McNergney, Robert F. and Francis, Patricia. (1986). Clinical teacher development revisited. Journal of Curriculum and Supervision, 1(3), 197-204.

Powell, Arthur. (1987). Personal communication.

Schon, D. A. (1983). The reflective practitioner. New York: Basic Books.

Schon, D. A., (1987) Educating the reflective practitioner. New York: Basic Books.

Tabachnik, B. R. and Zeichner, K. M. (1984). The impact of student teaching experience on the development of teacher perspectives. Journal of Teacher Education, 35(6), 28-36.

Tom, Alan R. (1972). Selective supervision. The Teacher Educator, 8, 23-26.

Zeichner, Kenneth M. and Liston, Daniel P. (1987). Teaching student teachers to rflect. Harvard Educational Review, 57(1), 23-48.

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